

California Refrigerator Men See Bright Future In 'Immigrants', Fewer Dealers

(Concluded from Page 1, Column 2) early last fall, they pulled in their horns and crawled into their holes (very pleasant "holes," one might observe).

All is not mournful, nevertheless. George Belsey, for example, feels pretty good about the future. Mr. Belsey, long the General Electric distributor in Los Angeles, took over the San Diego-Arizona territory, too, after George Bauder's death. So he looks out upon a fairly wide picture.

One thing Mr. Belsey sees is the booming and rapidly expanding aviation industry. Los Angeles has become the Detroit of airplane manufacturing. Orders for war planes are coming in from all over the globe at a rate which has swamped present manufacturing facilities.

'IMMIGRANTS' BUY

Another favorable straw-in-the-wind is the continuing influx of "immigrants" from other states. To be sure, many of these aren't exactly well off financially. But large numbers are, and they leave their household effects behind them when they come.

Commercial refrigeration continues to be good, too. Mr. Belsey is now merchandising his own line of cabinets and display cases under the trade name of "Belcold." They are made for him in Los Angeles by Ward.

"You've got to make cases locally to be competitive out here," Mr. Belsey explains. "Freight on those big cases is quite an item."

Electrolux and Coldspot seem to be the toughest competition, to Mr. Belsey's way of thinking. However, Electrolux isn't the irritant that it was two or three years ago. Its merchandising is still aggressive, and sales are high, but the competition is cleaner. Fewer and better dealers, along with sounder selling practices, have made Electrolux less hated.

Fact is, they turned out to be nice fellows, once you got to know them.

NO ASSOCIATION

So far, there is no league or association of dealers or distributors in the Los Angeles area. Disagreements on rigidity of price control, and one thing or another, have checked the few abortive attempts at organized cooperation.

Ranges, according to Mr. Belsey, were going strong until the flood came. The inundation of Los Angeles didn't seem to affect radio or refrigerator sales much, but it did put the quietus on range progress.

Another element in slowing down range progress was the action of the Southern California Edison Co. in slapping on a \$15 to \$20 range installation charge.

Formerly the Edison company installed them free, just as the municipal utility (Bureau of Power and Light) still does. Dealers are howling about the change.

RANGE FUTURE BRIGHT

But the future for ranges in this area looks bright. Rates are very low (down to 2 cents per kilowatt) and the utilities very helpful in promotion.

Willard Brown, a former Frigidaire man who took over the General Electric air-conditioning franchise from Mr. Belsey, is getting good volume, despite southern California's "ideal" climate.

At present he is featuring a home-made "desert cooler" for the torrid regions of California and Arizona.

This "desert cooler" is made by half a dozen firms in various sizes and styles, and plenty of them are tacked together by individual handy-men-around-the-house.

In design, it's too simple for words. It's just a box loaded with two pads of excelsior, framed in wire netting. There's a water inlet, which keeps the excelsior moist, and a drain. A fan pulls air from the outside through this contraption and into the house. The unit is generally set in an open window.

Selling for \$69.50 or thereabouts, it's a volume item, for it affords relief from the often insufferable desert atmosphere.

Frigidaire is the same powerful factor in the Los Angeles territory that it is elsewhere. And according to W. H. Dudley, household sales manager, the Frigidaire selling organization is in unusually shipshape condition.

Starting out with direct selling crews, Frigidaire later moved into an extensive dealer retail set-up. Working on the theory that if one hen will lay one egg, a thousand hens will lay a thousand eggs, dealers were appointed by the score.

But, to go on with the metaphor, the hens spent more time scratching and pecking at one another than they did laying eggs.

INTENSIVE SELLING

So Frigidaire turned to intensive selling through a few selected dealers of the highest type. This plan is working out best of all.

Today when Mr. Dudley chooses a dealer he looks for: (1) ability, (2) money, and (3) connections. With these three attributes, Frigidaire can supply the remainder of the assets needed.

Now that hotter weather is arriving, Mr. Dudley expects some real results. California buyers follow the weather charts, just as they do in the east.

The way Mr. Dudley looks at it, Sears-Roebuck simply bottled up all the price business which formerly went to the "cats and dogs." And that, he feels, is an improvement.

"We've always had price manufacturers," he points out, "only we used to have a lot of 'em. They were in-and-outers, here today and gone tomorrow. Sears has simply taken over their part of the industry, and put it on a substantial basis."

HEAVY ADVERTISING

Kelvinator, formerly handled by Listenwaller & Gough, is now sold in Los Angeles through a factory branch. T. J. McIntyre was lured away from Frigidaire to manage the new operation.

As others cut down on advertising, Mr. McIntyre is putting on more heat, in the hope of "getting all the business that's going to come out."

Currently he is splash-advertising a "warehouse sale" of 1937 models "still in their original crates."

Despite reduced prices, the 1937 models are moving more slowly than the new 1938's, he finds. As he sees the picture, it's this way:

"Only people who have money are spending, and they're getting what they want."

WEATHER IMPORTANT

He, too, is sensitive about the weather. A cloudy day in California is equivalent to snow in the east. People don't leave their homes—and they don't send in any orders by telephone, either.

Trade-ins, according to Mr. McIntyre, are now getting to be a bit of a problem. So far there has been no concerted effort to get the situation under control. It's every man for himself.

Like Frigidaire, Norge, and General Electric, Kelvinator is going in for fewer and better dealers—and dealers who stay in business.

Dealer turnover, they have learned, is an expensive thing.

Leo Meyberg Co., the crack Norge

ANSUL

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CHLORIDE

ANSUL CHEMICAL CO.
MARINETTE, WIS.

distributorship in California, has a big, prosperous-looking branch in Los Angeles, managed by the popular M. G. ("Pete") Seuss.

RADIO SALES GOOD

Recently J. T. Templeton, who was the San Francisco distributor for Westinghouse, joined the Meyberg organization in Los Angeles as assistant manager.

This firm also distributes RCA-Victor radios and Bendix home laundries. Radio business is excellent. Records are the big news, having shown sales increases steadily every month for more than two years.

The new Victor Record Society plan, which is a variation of the Book-of-the-Month idea, is creating new customers for records so rapidly that Mr. Seuss expects April to be the biggest record month in the history of the company.

RECORD PLAN

This plan is a scheme to make record buyers of radio users. You pay \$15, and get a \$14.95 record player attachment for your radio, plus \$9 worth of records of your own selection. After that you get record dividends, if you continue to buy them.

As Messrs. Seuss and Templeton see it, the trouble with 1938 refrigerator sales is a constipation of 1937 models. And that, in turn, is a wait on the FHA doorstep.

The FHA financing plan brought in its wake a raft of small dealers. They sold anybody they could get to hold still long enough, and soon got a flock of repossessions in their laps.

That put the small dealers out of the business. But the 1937 reposses-

sions are still around, log-jamming 1938 business.

ENCOURAGING NEWS

Meyberg's Louis R. Swenson reports an encouraging item. On a warm day last week he went out to San Bernardino to hold a dealer meeting. Every dealer there reported he had sold one or more refrigerators that day. A real break in the weather should produce big results, Mr. Swenson believes.

Mr. Seuss looks for a resumption of specialty selling in the refrigerator business. For some time now it has been "special selling"—the merchandising of "price specials"—and you don't make money that way.

Specialty selling and real dealers, Mr. Seuss forecasts, will bring the refrigerator business back to palmy days.

Chicago Service Society Sees Movie, Hears Talks

CHICAGO—Motion pictures about the products of Ranco, Inc., manufacturer of refrigeration controls, and Ansul Chemical Co., producer of sulphur dioxide and methyl chloride refrigerants, featured the meeting here Tuesday night, April 26, of the Greater Chicago Chapter, Refrigeration Service Engineers' Society.

The meeting was sponsored by Herman Goldberg, local manufacturers' representative.

Coming events scheduled for the R.S.E.S. chapter are: May 10—demonstration of the leak-alarm safety device by Midwest Mfg. Co. engineers; May 12—annual banquet at the Medinah club here.

Attendance, Exhibitors At Philadelphia Show Ahead Of 1937, Mark

PHILADELPHIA—Attendance at Philadelphia's 1938 Electrical Exposition, which closed April 23 after a week's run, exceeded by about 25,000 the total for 1937, it was reported by officials of Electrical Association of Philadelphia, which sponsored the event. Approximately 125,000 people saw this year's show, compared with 100,000 last year.

Exhibitors at this year's exposition also outnumbered those at the 1937 show, and a larger amount of newspaper advertising was used to publicize the show and individual exhibitors than last year. Exhibitors reported a number of appliance sales, and a larger number of prospects to be followed up later.

About 900 association members and guests attended a banquet meeting April 19 in Convention Hall, scene of the exposition, at which C. K. West, president of the association and a vice president of General Electric Co., presided. Speakers included George E. Whitwell, vice president in charge of sales of Philadelphia Electric Co., and Dr. George W. Allison of Modern Kitchen Bureau, New York City.

Yockey Sets Up Dealership

OIL CITY, Pa.—J. Ross Yockey, handling Norge appliances in the housewares department of C. H. Smith Son's Co. here, has established a Norge dealership here.

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Valves in our installations are helping us to build a large group of satisfied customers, which is so important to every business today."

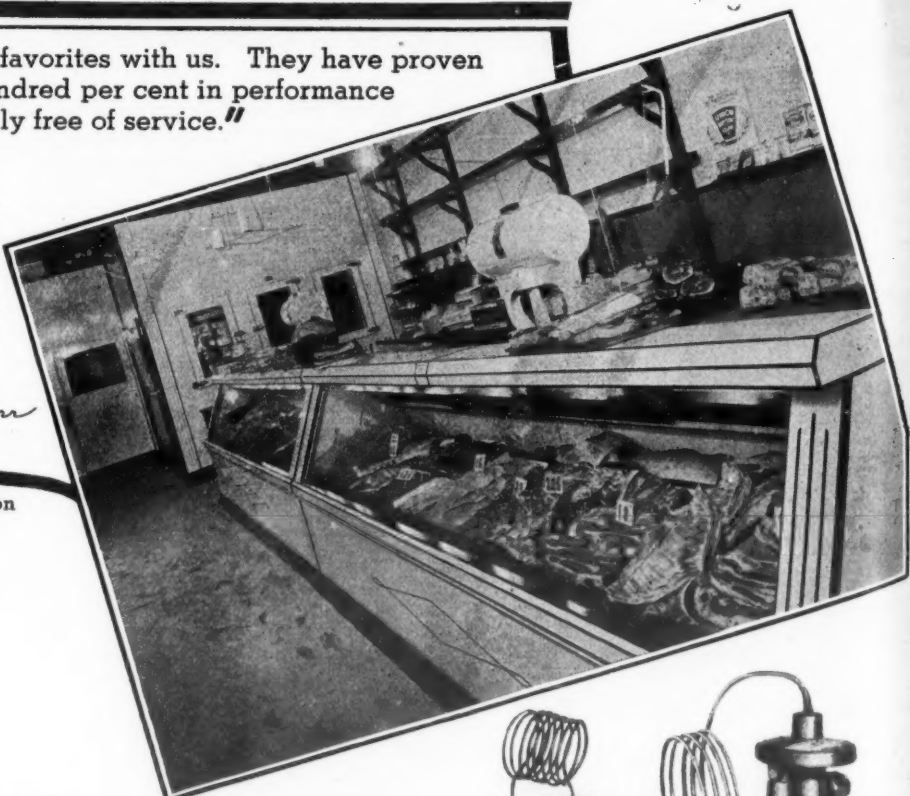
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Schwenger Klein, Inc.
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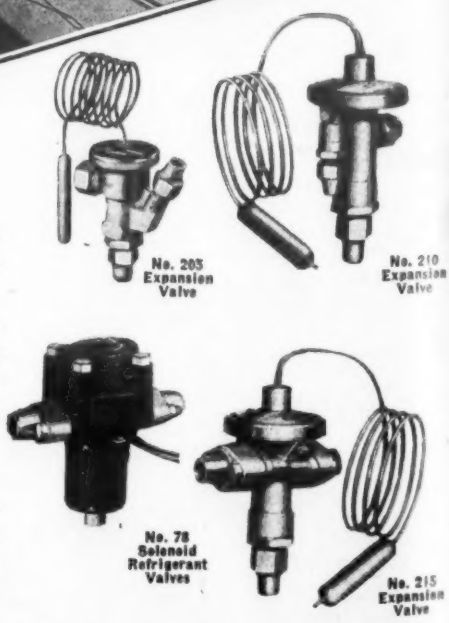
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THE COLD CANVASS

By B. T. Umor

Fake! Fake!

Have you ever wondered, as you watched those exciting movie scenes in which the hero whips his exhausted dog team across supposedly Arctic wastes, to rescue the gal from the villain's toils in time's nick, why you couldn't see the hero's breath as well as hear it? Now, at last, the truth comes to light.

Most movie "snow scenes" are filmed amid corn-flake and gypsum snow, and on stages where temperatures are at least 80°. Nettled by the snickers of ungrateful audiences, the producers of "Lost Horizon" did something about it by making many of the snow scenes on a refrigerated sound stage, built by a Los Angeles ice company.

You could see the actors' breaths, then. Now the movie magicians have figured another slick way around the Arctic atmosphere that is supposed to dominate many scenes of Warner Brothers' "White Banners," now in production.

A property man named Edward Edwards (no kin to Simone Simon, we understand) invented a tiny tank that smokes, is worn under the player's clothing, and is squeezed, bellows-fashion, by the pressure of an arm. A small rubber tube runs up through the collar to the unseen side of the player's chin, and is fastened there by flesh-colored tape.

Actors in the scenes have a double job—learning their lines and actions, and learning to simulate the exhalation of the "frosty" vapor at the right times, to make it look real.

We'll grant that any kind of vapor is better than no vapor at all—but just the same we're instructing our Hollywood agent to sneak into the gallery and boo at the preview.

(Concluded on Page 5, Column 1)

25,929 Commercial Sales By Nema Firms In March

DETROIT—World sales of commercial refrigerating and air-conditioning equipment to distributors and dealers by 14 member companies of National Electrical Manufacturers Association during March of this year totaled 25,929 units, a drop of about 28% as compared with sales of 36,166 units reported for the corresponding month last year.

Dollar volume of commercial and air-conditioning sales for March totaled \$3,742,577, compared with \$4,952,065 for that month last year.

Despite the general drop in commercial sales, several packaged items, notably ice cream cabinets and beverage coolers, continued to show marks considerably higher than

(Concluded on Page 5, Column 5)

'Flat Rate' Plan On Trade-Ins Tested In Indianapolis

INDIANAPOLIS—A "flat rate" policy on handling trade-ins of used electric refrigerators and radios, whereby the appliances are listed at a stated price "plus your old refrigerator (or radio)," has been adopted by several large stores here as an effective way of meeting customer abuses of the trade-in problem.

The trade-in policy, which is to continue in effect as long as conditions warrant, is being used by such large organizations as Banner-Whitehill's, Ayres', Blocks', and Sears, Roebuck & Co.

Where a fairly new piece of equipment, such as an electric refrigerator, is offered in trade for new merchandise, a special appraisal is made and

(Concluded on Page 5, Column 2)

Crosley Competes In Electric Range Field With 6-Stove Line

CINCINNATI—Crosley Radio Corp. has entered the electric range field with a line of six models, including units ranging from the deluxe type to kitchenette models designed especially for apartment house use.

Several of the newer electric range features are included in the new Crosley models, among them the "Speedwell" cooker, a deep container that may be installed in place of one of the regular top burners, or built in the range's upper utility drawer.

The cookers are included as standard equipment on two deluxe models; on the others, it is available at extra cost. Time controlled, the same as the oven of the range, it operates from a high of 660 watts to a low of 165 watts.

Another feature of the ranges is the convertible oven, which is available on certain models. It may be

(Concluded on Page 3, Column 1)

Detroit Dealers Seek Price-Control Action

DETROIT—Every national manufacturer of electric refrigerators, radios, and other appliances has been asked to help stabilize the retail appliance selling situation in Detroit by registering established list prices with Michigan distributors under definite price-maintenance agreements, Secretary Joseph A. Creed announced at last week's meeting of the Detroit Appliance Dealers' Association.

"Under the public acts of the state of Michigan, the manufacturer of any

(Concluded on Page 3, Column 1)

ASHVE Program Covers Air Flow, Cooling Problem

Summer Conditioning To Be Stressed At June 20 Meeting At Hot Springs

NEW YORK CITY—Tentative program for the summer meeting of American Society of Heating & Ventilating Engineers at the Homestead in Hot Springs, Va., June 20 to 22 includes 10 technical papers devoted to various phases of summer cooling and air conditioning.

Council of the society will hold its semi-annual meeting on June 19, and the committee on research, of which W. L. Fleisher is chairman, will meet in connection with the technical sessions. Annual banquet and dance will be held on the night of June 21. A full program of entertainment and sports also has been scheduled.

Papers scheduled for presentation and discussion at the meeting are: "A Test Method for Air Cleaning," by R. S. Dill; "The Flow of Air Through Exhaust Grilles," by A. M. Greene, Jr., and M. H. Dean; "The Condensation Nuclei Content of the Air as Related to Air Freshness," by R. A. Nielsen; "Heat Transfer Through Single and Double Glazing," by M. L. Carr, R. A. Miller, Leighton Orr, and Alan C. Byers.

(Concluded on Page 5, Column 4)

Los Angeles Dealers Adopt 'Second Line' To Meet Sears' Competition

By George F. Taubeneck

LOS ANGELES—Sears Roebuck's seven Los Angeles stores keep competing refrigerator outlets in more or less of a stew. Last year, Sears managers claim, they sold close to 24% of the total southern California business. Low prices and heavy advertising did the trick.

But there's one Los Angeles refrigeration outfit which has greeted the Sears advent with loud huzzahs. The boys you hear shouting "hooray" are Gilfillan field men.

Gilfillan, which is one of the country's four oldest radio manufacturers, one of the seven oldest refrigerator manufacturers, a maker of precision parts for Douglas aircraft—and other things—specializes on selling household refrigerators directly to dealers in the Far West.

Until the Sears competition reared its streamlined head, Gilfillan salesmen couldn't get much of anywhere. Their prices were too low. Both dealers and the public were scared of the product. Besides, dealers were quite satisfied with their nationally advertised lines.

Dept. Store Named A 'Sub-Dealer' On Electrolux Line

BIRMINGHAM, Ala.—In a move to better its coverage of prospects in the household refrigerator field, Birmingham Gas Co. has appointed Loveman, Joseph & Loeb department store an associate dealer in Servel Electrolux gas refrigerators.

This is the first time the gas company has taken such a step, and if the experiment proves successful it is expected that other sub-dealers also will be appointed. Purpose of the move is to increase contacts with prospects, and increase competition with electric refrigerator dealers in the city.

While gas refrigerator sales to apartment houses here have been good, sales to individual home owners have been slight, compared to electric refrigerator sales, it is understood. There are some 100 electric refrigerator dealers in the Birmingham area, compared with only one gas refrigerator dealer, until appointment of the department store as sub-dealership.

Loveman, Joseph & Loeb also has added a line of gas water heaters, with which the Electrolux line will be used to round out its gas appliance department. The department will have a counter where customers may pay their gas bills, and this is expected to substantially increase floor traffic. Heretofore, this advantage has been held only by the gas company itself.

Detroit To Have Exclusive Show On Conditioners

Exposition May 17-22 To Feature Commercial Cooling Uses

DETROIT — The first annual Detroit Air Conditioning Exposition will be held in the Detroit Edison Building, Second Ave. at Baltimore St., May 17 to 22. Sponsored by the Air Conditioning Association of Michigan, the exposition is designed to focus the attention of greater Detroit merchants, business, and professional men on the latest developments in the air-conditioning industry.

This is thought to be one of the first shows devoted exclusively to the display of commercial air-conditioning equipment to be sponsored by a local association of conditioning contractors.

Promotion for the exposition includes the mailing of 35,000 tickets, together with 17,000 invitations, to commercial customers of Detroit Edison Co. who have not yet installed air-conditioning systems.

Among the exhibitors will be: Airtemp Construction Co., Chrysler's Airtemp; American Refrigeration Co., Carbondale-Worthington; R. L. Spitzley Co., Delco-Frigidaire; Westlerin & Campbell, York; Kelvinator Branch, Kelvinator; Heberlee Ice Machine Co., Vilter; Mechanical Heat & Cold, Inc., Westinghouse; Atmospheric Control Corp., Carrier; and Detroit Refrigeration Co., Frick.

3 Twin-Cylinder Units In Gilfillan '38 Line

LOS ANGELES—Three models, each equipped with a twin-cylinder compressor, copper open-coil type evaporator, and double-row finned copper tube condenser radiator, comprise the 1938 line of Gilfillan household refrigerators recently introduced by Gilfillan Bros., Inc.

In the two smaller models, 408 and 618, the Gilfillan twin-cylinder reciprocating compressor is used. This compressor is designed so that it

(Concluded on Page 17, Column 4)

Sales By ACMA Firms Drop 68% In March

WASHINGTON, D. C.—Installed cost of equipment sold by members of Air Conditioning Manufacturers' Association during March of this year was \$5,419,116, an increase of 22.34% over the February total of \$4,428,469, but a drop of 68.38% from the March, 1937, figures of \$17,137,869.

Meyberg Distributorship Preparing For Intensive Selling On West Coast



(1) Gerald P. Hulett (right) West Coast representative for Bendix, brings a prospect into the Meyberg

showroom in Los Angeles. (2) Louis R. Swenson, Meyberg merchandising expert, looks over his copy of "Appliance Selling Today" before going out to call on dealers. (3) Manager "Pete" Seuss of Meyberg's Los Angeles

branch, is happy about RCA-Victor sales, and tells his staff that the time is ripe for intensive selling on Norge.

(4) J. T. Templeton, new assistant manager, goes over "Appliance Selling Today" with Mr. Seuss. (See page 7.)

Profitable Sales Ideas

Weekly Payments Increase Floor Sales For Store Using No Outside Salesmen

PONTIAC, Mich.—Merchandising major appliances by weekly-payment methods similar to those used in credit jewelry stores has resulted in the sale of approximately 400 refrigerators a year by the W. K. C., Inc. Store here, according to J. J. Wainger, general manager.

"We prefer store merchandising to outside selling methods," said Mr. Wainger, "because outside sales are often 'forced sales' which result in bad paper.

"Outside selling is costly to the merchant who is already paying rent for the purpose of having people come to his place of business. To operate a crew of outside men will cost between 10 and 15% including supervision. We take this percentage and use it in newspaper advertising, which brings people to us. Salesmen working on our floor getting 4 or 5% will make more money than outside men getting a much higher commission."

In the opinion of Mr. Wainger, no sale is so good as a floor sale.

"We carry all our own paper, and request that the customer make payments on a weekly basis, rather than monthly," he says. "This brings the customer into our store 52 times a

year, and if the customer is one or two payments behind, the period is weeks, not months.

We make a practice of rebating all carrying charges without penalty or 'service charge' if the customer pays his account up in advance. By having the customers come to us, we find that they will often pay more than the agreed payment on their account.

"During the last year, we have sold some merchandise on the 'meter-plan' and have found this fairly satisfactory, although the customer will not pay more than the amount he must pay to keep the appliances. Also, when the account is up to date, we never see the customer. What we like is to have the customer come to our store to make payments, as he will usually buy more merchandise and add it on to his credit account."

The W. K. C. Store in Pontiac is a member of a buying syndicate.

A spacious first-floor showroom displays refrigerators, radios, jewelry, luggage, and small appliances against a pleasing modernistic background.

The major appliance department of the business is located in the basement of the store.

Users' Economy Reports, Sales Training & Selling '38 Models Lead To Profits

NEW ORLEANS—Filing of users' experience reports, and a special sales training course in which certain sales points are stressed and in which knowledge of competitive merchandise and minor points in salesmen's conduct is emphasized have been leading factors in the steady sales increase of the major appliance department of Maison Blanche Co., local department store, declares John H. Eberhardt, department manager.

"A four-hour session is held every Monday night," said Mr. Eberhardt. "This is in addition to the three-hour meeting held Saturdays, and is given over to training purposes. So important do we feel this training is, that we are also going to use more of it in the Saturday meeting, as well. The sales course, begun a year ago, is being used more intensively than ever this year."

Mr. Eberhardt said that increased emphasis is being laid on the Frigidaire user's experience report, put out by Frigidaire for dealers' use.

'EXPERIENCE' REPORT

This experience report is presented by a Maison Blanche salesman to purchasers of Frigidaires. A copy follows:

"A model Frigidaire was installed in my home (date)....."

"REMARKS:"

ESTIMATED SAVINGS

"Following is my estimate of the

amount it has saved each month:

Saving Per Month

"By Preventing Spoilage of Food

Foods stay fresh for days at a time in a Frigidaire. Therefore, I estimate that I have averaged a saving of at least\$ per meal (for two meals a day) by preventing food spoilage \$.....

"By Buying 'Bargain Specials'

Because foods keep longer in a Frigidaire, I am able to save money by taking advantage of Bargain Specials at the store. I estimate that I have averaged a saving of at least \$..... per week in this way \$.....

"By Buying in Larger Quantities

With my Frigidaire, I can buy in larger quantities than I could before, because the foods stay fresh. I estimate that my savings in this way have averaged at least \$..... per week \$.....

"By Reducing Refrigeration Cost

My former average monthly ice bill was \$..... My average monthly electric bill for Frigidaire is approximately \$.....

My saving per month on refrigeration cost is, therefore, approximately \$.....

"Total Estimated Savings

My total estimated saving, per month, by use of my Frigidaire has been \$.....

I have kept perishables in perfect condition for as long a period of time as follows:

Fresh fruits days.
Fresh vegetables days.
Milk days.
Cooked foods days.
Fresh meat days.

"See other side for my additional comments concerning the use of my Frigidaire."

Name

Address

Date

The back of the experience report is left blank for additional comments by the customer.

QUOTA ON REPORTS

"This year," continued Mr. Eberhardt, "we have set a quota on the experience reports. Each salesman must turn in five each week, or lose one of the two floor days each week he is allowed.

"The reports are placed in an open book-file, available on the sales floor. Accumulation of 600 to 700 of them will remove all doubts of skeptical customers who might consider them to have been 'paid for.'"

Calls made by salesmen for the experience reports are in addition to the regular follow-up calls on new refrigerators sold. Three follow-up calls are made within a very short time after the sale. The experience report usually is called for about six months afterward.

"A most successful feature of the sales training," Mr. Eberhardt pointed out, "has been the allotment to each of the nine refrigerator salesmen of a competitive refrigerator for study and report. He studies it thoroughly, and presents his knowl-

edge of the competitive box and its sales points in a talk in open meeting.

"We then go over the arguments, thrash them out, and find out how we can best meet them with our own refrigerator."

In the matter of personal habits, Mr. Eberhardt said, the offending salesmen are penalized by the loss of floor days, and commendable salesmen are awarded by extra floor days.

"We use a demerit system," he explained. "Demerits are given a salesman for talking to a customer with his hands in his pockets, or for joking with other salesmen off in a corner when he should be attentive to his work on the floor, or for coming in late, failing to file his reports, etc.

LOSE FLOOR DAY

"Three demerits in one week mean the loss of a floor day. Judges of whether demerits should be given are the manager and assistant manager. A good deal of the success of such a move depends on the spirit in which it is received.

"The spirit on our floor has been good, and the men help promote its use by joking with one another about getting demerits. The whole system has tended to make the men more conscious of the smaller points in selling and conduct, which really count most with the housewife, after all."

To increase sales further, Mr. Eberhardt has refrained from trying to get rid of 1937 stock at sale prices, and has decided to hold them until the real selling season and then advertise them at reduced prices. By so doing, he believes he can attract customers to the Maison Blanche store, thereby making it possible to sell them 1938 refrigerators instead.

"We had a 5 to 10% increase the first two months of the year," he declared, "partly because we didn't dump the 1937 refrigerators on the market."

"Instead of this, we prefer to hold them for the June and July market. Last year, for instance, we bought about 50 1936 carry-overs and held them for the purpose."

In June and July, he explained, these carry-overs serve well as "come ons" for the new refrigerators. Those that do sell are sold to customers who couldn't afford a new unit anyway.

Tip On Potential Sale Eliminates a Payment For Starr Co. Buyers

BIRMINGHAM, Ala.—Something a little out of the ordinary in the way of premiums for hot prospect tips received from users is offered by the Starr Co., local music and refrigeration dealer which handles the Starr-Freezer line of refrigeration equipment, reports Miss J. M. Foley, southeastern manager for the company.

Any refrigeration customer of the Starr Co. who has not finished paying for his equipment can eliminate one of the scheduled payments simply by turning in the name of another potential customer. The payment is deducted from the customer's bill, of course, only if the prospect actually is sold.

Miss Foley first joined the Starr organization as a demonstrator of pianos. From that position, she worked into the piano sales department, and finally was given control of the office, including both music and refrigeration activities.

At first she "thought she would never learn" what refrigeration was all about, but now she is well versed in the field and, with the help of the store's service manager, figures many of the jobs which the Starr Co. installs.

IT PASSES THE TRIPLE TEST

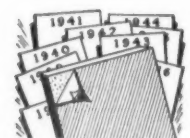
BALSAM-WOOL

SEALED INSULATION



THE "KITCHEN TEST"

More than 3,700,000 refrigerators . . . in use all over the land . . . Balsam-Wool Fibre SEALED Slabs have proved that they are highly efficient, clean, odorless, sanitary and non-settling. What cabinet manufacturer or sales representative can overlook this overwhelming evidence of customer satisfaction?



THE "LONG-LIFE" TEST

When Balsam-Wool Fibre SEALED Slabs are used, the cabinet is efficiently insulated throughout its life. For Balsam-Wool keeps its effectiveness.



THE "SANITATION" TEST

Balsam-Wool is an odorless, clean and sanitary material—ideal for refrigerator use. Your customers will appreciate knowing that your refrigerators are insulated with the right kind of material—Balsam-Wool.

Balsam-Wool Fibre SEALED Slabs can be manufactured to your specifications on special machines in your own plants.

Write for complete details.

WOOD CONVERSION COMPANY

Refrigeration Sales Division

360 North Michigan Avenue, Chicago, Illinois
St. Paul, Minn. New York, N. Y.

BALSAM-WOOL

SEALED INSULATION SLABS

PRODUCT OF WEYERHAEUSER

Extra Value

• Check Copeland's EXTRA VALUES—Twin-Cylinder Unit, Humidi-Pack, Four-In-One Food File, Longer Service-Free Performance! These EXTRA VALUES, plus the tempting appeal of Copeland's low price and better terms, make the Copeland your wisest choice for 1938.

Write for Full Facts TODAY!

You're selling Extra Value when you sell
COPELAND REFRIGERATORS

COPELAND REFRIGERATION CORPORATION, Sidney, Ohio



Detroit Dealers Move To Get Adherence To Price-Contract Law

(Concluded from Page 1, Column 2)

trade-marked or branded merchandise is permitted to set a price on his products which the distributor must see is maintained," Mr. Creed said. "We believe it is the duty of the appliance manufacturer to do all he can to help the dealer make a profit. "We have asked the support of every manufacturer of national-brand merchandise selling products in Michigan in registering those products under definite list prices, which the distributor must see is maintained."

Once definite list prices have been established, Mr. Creed pointed out, it will be the duty of dealers to see that these prices are adhered to, and that all violations by price-cutting competitors are reported to the distributor promptly.

"You can't expect the manufacturer to shoulder all the burden of price maintenance," Mr. Creed warned. "You've got to correct your own evils—you'll have to put your own house in order, and keep it that way."

A number of appliance manufacturers contacted by the Detroit association already have indicated their willingness to cooperate in stabilizing retail selling prices, Mr. Creed said.

The section of the public acts of Michigan relating to price maintenance provides that any manufacturer of merchandise bearing his trade-mark (manufacturers of refrigerators, radios, or appliances, for example) may regulate the sale or resale of his product by providing contracts in which the buyer agrees not to resell the merchandise at less than a stipulated price.

After the price is set by the manufacturer, the vendee (or distributor) of the merchandise may require that the purchaser (or dealer) agree that he will not, in turn, resell at less than the price stipulated, except when sale of the equipment is being discontinued by the dealer, and the manufacturer or distributor has had a chance to buy back the merchandise; when the sale is ordered by the court; or when the goods is damaged, and is sold as such.

Under provisions of the act, willfully and knowingly advertising, offering for sale, or selling any merchandise at less than the price as set in such contracts, whether or not the person who violates the contract is a party to the agreement, is unfair competition and is subject to suit by any person injured by the action, and may be enjoined by a court of competent jurisdiction.

Crosley Range Ovens Have 'Stabilized Heat'

(Concluded from Page 1, Column 2)

equipped with one unit or two. Large space is provided below the unit for broiling. Equipped with two units, it is a standard "stabilized heat" oven, top unit being used with the bottom unit for preheating, and alone for broiling.

Other optional equipment includes lamps and electric timers, Chromalox speed units for faster cooking and easier cleaning, and two-piece condiment set.

Models in the 850 series have door-type ovens, and are available with either four open or closed cooking units, three open or closed units and a well cooker, or three open units and a simmer unit.

Models in the 860 series have drawer-action ovens, and the option of either four open surface units or three units and a well cooker. Work space is in the center on these units; on all others, it is at the right side.

The 870 series units have drawer-type ovens and extra utility drawers, with closed and open units and well-cooker arrangements optional.

Models in the 880 series have two ovens, open or closed surface units, and well-cooker arrangement. Left oven is of the roaster type, with units concealed; right oven can be time controlled. Extra storage space is available.

The 885 series is equipped with a combination of electric and coal or electric and oil burners. Models are designed especially for use in rural territories, where the stove is used to heat the kitchen during the winter.

West Coast Manufacturer Profits as Dealers Meet Sears Competition With 'Second Line'

(Concluded from Page 1, Column 4)

after he learned that he could buy a new, nice-looking refrigerator at a price which matched the Sears advertised figure.

One might think that Gilfillan executives would get a bit restive over a situation which makes their product—one of which they're mighty proud—a "second" line. But they're not looking a gift horse in the mouth. Sales are on the up, and they firmly believe that they will continue to rise throughout the year.

Gilfillan will stock a dealer with a complete line (three models—a four, a six, and an eight) for \$60.35 cash. That represents one third of the price to the dealer. There is no sliding scale of discounts. Everybody pays the same price at the factory. There are no quotas, and there is no supervision. The dealer is on his own, as far as merchandising is concerned.

All this, including the discounts, applies even to Gilfillan's best customer, the Western Auto Supply Co. Last year this western chain-store group stocked Gilfillan refrigerators in 50 out of 230 stores; this year the line is on display in 110 stores, and can be ordered through the remainder.

In large space newspaper and western magazine advertising, and in circulars which are distributed to every home in the city where there is a Wasco store, the Gilfillan line is advertised. Thus 10 western states are covered pretty well by promotion, which serves to some extent to cover

up the manufacturer's deficiency in this regard.

For some years Gilfillan has done pretty well with the building trade. Operating entirely through dealers (some of which specialize in supplying builders) Gilfillan refrigerators have gone into thousands of new California homes in the last few years.

Speculative building is still booming in California. Recession or no recession, people still like to move out there to live. Los Angeles expects to be the fourth largest city in the country by the end of 1938, supplanting Detroit. And no end of the flow of immigration appears to be in sight.

Most of the people who move out to California to make new residence sell their homes and their furniture back East. Hence they are ready customers for new refrigerators—demand them, in fact. Perhaps this is one reason why trade-ins haven't become so bothersome a factor in sales in southern California. The percentage is still relatively low.

Today thousands of new homes are going up in new subdivisions located in outlying Los Angeles and San Diego districts. Working on a close margin, many Gilfillan dealers are concentrating on this market. One such dealer sold 1,900 refrigerators in 1937.

Export business, handled directly by Gilfillan, has been increasing—especially to South America and South Africa. Resumption of trade with Australia is looked forward to eagerly.

22,500 Appliance Sales Goal Of Utility Drive

BIRMINGHAM, Ala.—An extensive expansion campaign planned to create a market for 22,250 major household appliances and several hundred thousand minor appliances in 1938 is being conducted by Alabama Power Co. in conjunction with dealers throughout its territory, reports Thomas W. Martin, president.

In the power company's budget for 1938, the following sales totals of major appliances are listed: (by the utility) 2,500 refrigerators; 3,000 electric ranges; 1,500 water heaters; (by cooperating dealers) 12,000 refrigerators; 2,250 ranges; 1,000 water heaters.

Total sales budgeted for each type of appliance are: refrigerators, 14,500; ranges, 5,250; water heaters, 2,500.

In minor appliances, Alabama Power Co. has budgeted for itself sales of 4,000 I.E.S. lamps; 2,000 hand irons; 500 ironers; 1,200 washing machines; 250 dishwashers; 500 ventilating fans; 300 vacuum cleaners; 1,000 desk lamps; 1,000 percolators; 200,000 lamp bulbs; and other units bringing the total expected volume of this group to 216,950 sales.

At present, the utility is working in conjunction with dealers on an electric range campaign in which cash prizes are being offered to salesmen. This particular drive will be continued for the remainder of the year.

The company's 1937 rural electrification program resulted in the building of 1,945 miles of rural power

lines with an estimated total of 8,502 rural customers on the new lines.

In 1938, it is proposed to build 400 miles of rural lines and add 1,850 new customers on them, in addition to 2,840 customers to be added to lines already in service.

At the end of 1937, the company was supplying electric power to 134,179 customers, of whom 58.5% were urban residents and 41.5% rural.

Total major appliance sales in 1937 by the utility and cooperating dealers was 27,600, comprised of 19,073 refrigerators, 5,963 ranges, and 2,829 water heaters.

Lovelock's General Manager To Visit U. S. Firms

SYDNEY, N. S. W., Australia—F. E. Hansen, general manager of F. C. Lovelock, Ltd., Australian manufacturers' representative, will sail from Sydney June 24 on a visit to the United States, during which he will contact manufacturers and suppliers of refrigeration and air-conditioning equipment. He expects to return to Australia by the first of November.

Teagan Named Universal Cooler Export Manager

DETROIT—J. Howard Teagan has been appointed export manager of Universal Cooler Corp., President Frank S. McNeal has announced.

Mr. Teagan has had several years experience in sales promotion work in various world markets.



"OUR OLD CUSTOMERS
CAN BE
Your new Ones"

PEOPLE who have bought automobiles and automatic equipment for kitchen and laundry on the Commercial Credit Company time-payment plan have been pleased with its low cost, and with the courteous way they've been treated. They're ready to do business through us again.

I can make your selling job with these folks far easier. I have kept tabs on them in a friendly way. I can steer

you clear of dangerous credit risks... give you a financing service they'll readily accept.

When you do business with me you get these extra advantages, plus freedom from credit cares. You get your cash promptly. We carry on with a frictionless collection system that relieves you from worry or embarrassment. All your time may be devoted to your principal problem—sales.

I am the local manager for Commercial Credit. I can take care of all your sound sales despite local conditions. Feel free to consult me. No obligation, of course.

REFRIGERATORS • RADIOS
RANGES • HEATING AND AIR
CONDITIONING EQUIPMENT



COMMERCIAL CREDIT COMPANY

COMMERCIAL BANKERS



HEADQUARTERS BALTIMORE

CONSOLIDATED CAPITAL AND SURPLUS OVER \$64,000,000

Serving Manufacturers, Distributors and Dealers Thru More Than 200 Offices in the U. S. and Canada

Specialty Selling Methods

Power Company Stimulates Salesmen With Contest Featuring Free Trip To the Derby

NASHVILLE, Tenn.—And so these hard-working appliance salesmen, as a reward for their noble efforts, were given a free trip to the Kentucky Derby, and . . . Does that sound like the grand climax to a modern counterpart of one of Grimm's most far-fetched fairy tales?

Maybe so, but that's just what happened in Nashville, for a week-end trip to Louisville, Ky., to witness America's greatest racing classic was the top award in a two-month major appliance sales contest sponsored for all Nashville appliance salesmen by Tennessee Electric Power Co., the utility which serves this vicinity.

Scoring in this contest, which started March 7 and ended April 30, was on a point basis, with each refrigerator sale netting two points, while sale of a range or water heater added four points to the salesman's score.

To qualify for the free Derby trip, a salesman had to chalk up a total of 100 points during the contest. If he wanted to take his wife or a blonde along with him, the salesman had to register 200 points.

Those qualifying for the trip are scheduled to leave here Friday night,

May 6, spend Saturday (Derbyday) in Louisville, and return here Sunday.

For salesmen who couldn't hit the 100 mark, lesser prizes were offered, with \$25 in cash going to each man totaling 50 points and \$10 in cash to salesmen accumulating 20 points.

Retail salesmen of every appliance dealership in the city were eligible for the contest, with the exception of salesmen employed in the utility's merchandising department.

G-E Issues Sales Manual On Electric Cookery

CLEVELAND—"New Light on Heat," a booklet on electric cookery intended primarily as a sales training manual, has been prepared by the appliance and merchandise department of General Electric Co. and is ready for release to the department's sales organization at 25 cents a copy, announces John F. McBride, of the range and water heater section.

Liberal illustrated with drawings, sketches, and graphs, the booklet is called the "A, B, C of electric cookery." It is written in primer style.

Display Turns For Customers Inside & Outside Of Store



Noted for effective window displays to help sell electrical appliances, the Cincinnati Gas & Electric Co., has installed a moving display that dramatizes the sales appeals for Crosley electric refrigerators.

The central section of the display is composed of a platform unit, carrying two heavy turntables, electrically operated and synchronized to make one half of a revolution on each impulse from a master timing unit.

On each turntable is placed two refrigerators with back panels for each refrigerator. The turntables are so arranged that while one box is presented to the window front, the other turntable is reversed to show the rear side of the panel, which carries the story about the space saved by the Shelvador feature. The operation of this unit is made doubly effective as there is no window background and people in the store can see the display and the story as well as those on the street.

On the sides of the central feature is an arrangement of panels and columns, with the columns carrying photos and pertinent copy regarding the economy features of the refrigerator, as well as "Electro-Saver"

cutout insignias. Space for showing two additional refrigerators is provided on each side of the central unit through the use of well arranged platform bases.

General construction of the unit is executed in plywood, Masonite and white pine, with lacquer finish on all surfaces in order to withstand the several showings that will be given this display. It is done in a combination of bright colors. The columns are in a shading of white and yellow, with maroon trim at the bottom. The background panels are finished in bright red, with aluminum trim. The bases have salmon-colored tops with maroon risers. Flags are of bright blue and gold rayon.

Cordley ... A LINE OF WATER COOLERS

YOU CAN SELL WITH *confidence*

THOROUGHLY DEPENDABLE is the foremost characteristic of the Cordley line. Remember, a cooler sale is profitable only when the cooler gives long, uninterrupted, trouble-free service. Cordley has been making water cooling equipment since 1889, electric coolers for 10 years. Cordley Coolers are built right and priced right . . . with the idea of giving dealers

a fair, legitimate profit and safeguarding that profit throughout the years. Our line is complete, including both bottle and bubbler types. May we send you literature describing their superior features and detailed information on our dealer proposition. Sell a line in which you can have complete confidence . . . Cordley Electric Water Coolers.

NATIONALLY KNOWN FIRMS USE CORDLEY COOLERS

Here are a few of the larger national organizations using them: Remington Rand, Hammond Clock, American Viscose, Sears Roebuck, American Optical, Republic Steel, National Lead Co., Walter Baker Chocolate, Plymouth Cordage, Whitall Tatum,

McCrary Stores, Sweet Orr Overall, Pacific Mills, Cannon Mills, Tide Water Oil, Rogers Peet, Otis Elevator, Simmons Bed, General Foods, Pittsburgh Laundries, Chance Vought, Burnham Boiler, New York Central Building.



Right: Here's a representative bubbler cooler. This particular model (T-12) recommended for factories and offices with from 100-300 employees. Other models available for private offices, stores, restaurants, etc.

Left: One of our bottle type coolers suitable for offices and reception rooms, for use where city water supply is unavailable or inconveniently located. May be supplied with built-in storage compartment equipped with lock. Bottle coolers involve no installation expense or plumbing and can be readily moved when necessary.

CORDLEY & HAYES
157 HUDSON STREET
NEW YORK CITY



CORDLEY water coolers

Grownup Children Of 'Cream Market' Families Are Dealer's New Market

By James McCallum Jr.

CHARLOTTE, N. C.—"Despite the fact that nearly everyone in the appliance business, from manufacturer down to dealer salesman, is bemoaning the disappearance of the so-called 'cream market,' that market still exists for any dealer who wants to reach it and who knows how to go about it."

Rather startling, this declaration, isn't it? But it's one of the fundamental bits of sales philosophy which L. W. (Bill) Driscoll, General Electric distributor in this territory, keeps pounding into his dealers, especially into those who seem to display an increasing tendency for making "unsound" sales to families in the lower income brackets. And what's more, Mr. Driscoll backs his arguments up with some mighty potent logic.

"Drive out into any fairly well-to-do residential district and look at all the nice homes," Mr. Driscoll suggests. "It is the families living in these homes and others like them that constitute the 'cream market.' True, most of these homes already are equipped with electric refrigerators and many other electrical appliances; most of this particular 'cream market' has disappeared.

CREAM MARKET EXPANDS

"But just remember this—in most of these homes there are two or three or four sons or daughters of all ages. There is an ever-constant group of these sons and daughters who are growing up, marrying, and establishing homes of their own. In this way, the 'cream market' is continually growing and expanding; 'cream market' prospects are continually multiplying, just like rabbits or guinea pigs.

"For you can bet your bottom dollar that whether Papa's favorite daughter marries an impecunious prince or a \$20-a-week bus boy she is not going to ruin her beautiful, lily-white hands in hot greasy dish-water or sweat and slave her life away over an old-fashioned cook stove. No sir, she's going to live in luxury and have the best that money can buy—even if Papa has to do without one of his five cars.

"So just remember that as long as anybody has any money left, the

'cream market' never will die out. There always will be a new generation to take the place of the one you just sold.

"If dealers only would realize this fact, and try to reach this market instead of picking their prospects from increasingly lower rungs of the income ladder, they would be far better off."

Did Mr. Driscoll originate this theory himself? "No," he freely admits, "I picked it up from a friend of mine, a dental supply man who made a specialty of equipping young fellows fresh out of dental school.

"I asked him one day how in thunder he made a living selling anything to these college graduates, most of whom emerged from school not only broke but somewhat in debt.

'SELL THE OLD FOLKS'

"Oh, that's easy," he replied. "I don't sell the stuff to them. I just drop in on their parents a few months before their sons graduate and sell the old folks the idea of presenting their progeny with a fully equipped office as a graduation present."

"Appliance dealers can work in exactly the same way," Mr. Driscoll insists. "If they watch the society pages carefully for wedding announcements, and then start working on the parents of the couples involved, they will discover a market they never knew existed.

"I further believe that the success of any distributor depends upon his ability to recognize the existence of this market, and his ability to make his dealers take advantage of it."

2,000 IN QUARTER

The Driscoll organization sold over 2,000 refrigerators to its dealers during the first quarter of the year, and yet on April 1 these dealers had a total of less than 1,000 units left in stock. Mr. Driscoll also reports that delinquent accounts have been steadily reducing and that repossession have been hardly noticeable.

What's more, Mr. Driscoll prophesies that in spite of the alleged business slump his company's refrigerator sales will come within 15% of equaling last year's 6,300 units.

THE COLD CANVASS

By B. T. Umore

(Concluded from Page 1, Column 1)

Restrictive Laws Keep Oranges From Floridians

A recent editorial in the Miami (Fla.) Herald bemoans the fact that orange juice still sells for a dime a glass in Florida—when you can get it—while the groves are full of oranges which cannot be sold. It says: "What should be as popular in the beverage line as Coca-Cola in Atlanta is still in the semi-luxury class in Florida."

Driving up the west coast on the Tamiami Trail recently, the publisher of the NEWS found that it was indeed difficult to get orange juice in Florida except during the "season." A way-side restaurant offered Coca-Cola from Atlanta and various other beverages but no orange juice. Explained the waitress: "The trucks aren't coming by anymore."

Though the Miami Herald does not mention it, we understand that Florida prohibits the importation of oranges from other states, even during the off-season. Laws to regulate business, particularly those designed to prevent competition, have a way of backfiring on the very people the laws were intended to protect.

Where Some Of Those Old Appliances Go

If you are looking for old or historical items for use in store window displays or exhibits, write a letter to Hobbies Magazine, 2810 S. Michigan Ave., Chicago. We have recently received a sample copy of Hobbies and a letter inviting such inquiries. An amazing variety of junk is illustrated in the editorial and advertising columns of the magazine.

Radio Digest

Artistic Fred Cross, who is Stewart-Warner's advertising manager is doing quite a bit of speculation on the probable success of a new radio program, which as yet has neither sponsor nor time on the ether.

It is a "Radio Digest" and will attempt to do for each week's radio programs what "Reader's Digest" does for each month's magazines.

Permission has been obtained from a number of leading air shows to repeat gags, lines, musical scores, and whatnot on the condensed pot-pourri. And impersonations have been lined up to simulate the voices of various microphone masters.

It sounds clever, but far from easy to produce.

Call For Mr. Ripley

The automobile of Pete Hatcher, Clarksville, Tenn., foundry employe, was set on fire by a jug of water, and the blaze was extinguished by the same water. According to Dry-Zero News, the jug was sitting a short distance from the upholstery of the car. Sun rays were focused by the jug upon the upholstery, which soon ignited.

'They Live Up To Their Names' Dept.

Albert E. Middleman is a manufacturer's representative in Pittsburgh.

Joseph A. Creed is secretary of the Detroit Appliance Dealers' Association, which has just formulated a "code of ethics" for retail trade practices.

Time Marches Backward

News dispatch from Toronto, Canada:

"Mayor Ralph C. Day announced last week he would not make an expenditure of \$1,000 of city funds to provide air conditioning for the mayor's office. The improvement had been planned by ex-Mayor W. D. Robbins."

In 'Flat Rate' Trade-In Plan the Allowance Is Figured Into the Mark-Up On the Unit

(Concluded from Page 1, Column 2)

terms offered to suit the specific transaction. In all other cases, however, merchants who are using the plan fix a flat price for the new article, including whatever equipment is offered in trade.

Reason for adopting the flat-rate trade-in plan, merchants using the policy say, is that most equipment traded in on new unit sales is worthless, and is saleable only to second-hand dealers. Some of them who had previously offered definite trade-in prices found that not only were the old refrigerators or radios traded for of little value, but that prospects for new products were picking up the junked equipment from second-hand dealers and offering it as trade-ins on new merchandise.

To halt this abuse of trade-in offers, all used merchandise now taken in on new refrigerators or radios is disposed of as junk. The few which are still of some value

are given outright to charitable institutions for their own use. Some companies continue to recondition the used equipment for resale, but under the present policy they will be asked to discontinue this practice.

Banner-Whitehill is credited with inaugurating the present flat-rate trade-in policy. The action first was applied to radios, and when it proved successful was extended to refrigerators also.

Even if the trade-ins are junked, the stores take no loss on them, since the price allotted to the trade-in is figured into the mark-up on the new radio or refrigerator. Stores using the plan here say it makes possible a higher mark-up on the units, and that junking the old appliance removes a market threat.

It has even been suggested that the stores hold a public bonfire of old refrigerators and radios, similar to those held in some cities during National Used Car Week recently.

Summer Cooling Problems To Dominate Program At ASHVE Meeting

(Concluded from Page 1, Column 3)

"Glass Heat Transfer Coefficients," by D. Shore; "Performance of Surface Coil Dehumidifiers for Comfort Air Conditioning," by G. L. Tuve and L. T. Seigel; "Seasonal Variations in Effective Temperature Requirements," by F. E. Giesecke, W. H. Badgett, and F. C. Houghten; "Cooling Requirements for Summer Comfort Air Conditioning in Toronto," by C. Tasker.

"The General Reactions of 275 Workers to Summer Cooling and Air Conditioning," by A. B. Newton and F. C. Houghten; "Study of Summer Cooling in the Research Residence Using a Small Capacity Mechanical Condensing Unit," by A. P. Kratz, S. Konzo, M. K. Fahnestock, and E. L. Broderick.

Entertainment program for the meeting includes golf and tennis tournaments, sightseeing trips, concerts, bridge, and dancing.

March Beverage Cooler Shipments Show Gain

(Concluded from Page 1, Column 1) those for corresponding months in 1937.

Beverage cooler shipments in March totaled 6,867 units compared with 6,411 during the month last year, and ice cream cabinet shipments were 4,548 units against 4,184 units in the same period of 1937.

Shipments of self-contained air conditioners, higher than in 1937 during the year's first two months, dropped in March to a total of 2,145 units, compared with 2,802 units in March, 1937. Total sales of commercial condensing units reported by Nema members for this March were 10,590 units, against 18,655 in 1937.

Manufacturers reporting commercial and air-conditioning equipment shipments to Nema for March included Brunner, Carrier, Crosley, General Electric, Gibson, Frigidaire, Kelvinator, Merchant & Evans, Norge, Servel, Uniflow, Universal Cooler, Westinghouse, and York.

EVERY AIR CONDITIONING MAN SHOULD KNOW

A NUMBER OF FUNDAMENTALS CONCERNING AIR CONDITIONING AND REFRIGERANTS

IF the air conditioning installation is a sizable one involving a duct system, the duct system should conform to the rules published by the National Board of Fire Underwriters in NBFU Pamphlet No. 90 entitled, "Regulations of the National Board of Fire Underwriters for the Installation of Air Conditioning, Warm Air Heating, Air Cooling and Ventilating Systems" (July 15, 1937). These regulations are published by the Board at 85 John Street, New York City, or 222 West Adams Street, Chicago. See Paragraph 191 covering refrigerants and specify condensing equipment for permissible refrigerants.

If the system is a small commercial or air conditioning installation containing not over 100 pounds of refrigerant, design to conform to the "Standard For Air Conditioning and Commercial Refrigerating Equipment" (Subject 207, June 16, 1937)

of Underwriters' Laboratories, Inc., 207 East Ohio Street, Chicago. See Paragraphs 36 and 37 and draw specification for air conditioning refrigerants in accordance.

Should your client desire a unit system containing not more than 20 pounds of refrigerant, Underwriters' Laboratories, Inc., have a "Standard For Unit Refrigerating Systems" (Subject 207, June 15, 1937). Secure a copy of this standard and consult Paragraphs 29 and 30 for permissible refrigerants for air conditioning.

If you desire to consult Underwriters' Laboratories Report MH-2375 entitled, "The Comparative Life, Fire and Explosion Hazards of the Common Refrigerants," inquire at the reference desk of your Public Library. Or we will mail a copy, postpaid, on receipt of one dollar.

By following these rules, you avoid any possibility of penalty to your client in insurance rates for using refrigerating and air conditioning systems in non-conformance with regulations.

If you would be safe respecting refrigerants, specify the safe "Freon" refrigerants for air conditioning, which meet all the specifications of the National Board of Fire Underwriters and the Underwriters' Laboratories, Inc.

"Freon" refrigerants are non-toxic, non-flammable and non-injurious to foods, furs, books, paintings and other fragile and perishable articles.



FREON

REG. U. S. PAT. OFF.

safe refrigerants

*"Freon" is Kinetic's registered trade mark for its fluorine refrigerants.

KINETIC CHEMICALS, INC., TENTH & MARKET STREETS, WILMINGTON, DELAWARE

'Sales Record' & 'Profit & Loss Statement' Are Important In Dealer's Accounting Setup

THE cost of keeping records for the government constitutes a major expense for any business today, no matter how small the business. Tax laws require that records be kept, and even a one-man business may be subjected to governmental examination at any time.

The only sure way for the appliance dealer to keep out of trouble is to keep complete, clear, and accurate records of his entire business and file reports with the government as they are required from time to time in the payment of taxes.

While the dealer should keep an accurate record of sales for his own use, it is imperative that it be kept for the purpose of making tax reports to the government.

The uniform sales record given in

the machinery for finding out how much he has made or lost.

The alert dealer will make up a "profit and loss" statement each month, similar to the one shown in Table 4, while some dealers have found that it pays to make up this statement each week. The dealer should not deceive himself as to the true condition of his business, but should assemble all facts necessary to give him a true picture of the condition of his business.

From time to time it becomes necessary to add new accounts to any system, and for this reason we have deliberately skipped from No. 9, which was the final account given on our "assets and liabilities" statement given last week, to account No. 100, which we use for "sales." Some of

chandise. We have assumed that the dealer sold \$2,500 worth of goods the first month, which we have set up under account No. 100, and that a discount of 40% would give a merchandise cost of \$1,500, which we establish under account No. 50.

Account No. 51 shows the total of commissions that have been paid, including 10% sales commission on the \$2,500, amounting to \$250 and 2% over-ride, which is \$50, which totals \$300, as listed in Account No. 51.

OPERATING EXPENSES

Account No. 58 covers operating expenses. We have assumed that the dealer pays \$50 rent, \$12 light, \$10 heat, and \$20 for telephone. These figures will naturally vary with all sizes and types of appliance business and are given here only to illustrate the accounting system.

In account No. 59 we assume that the owner withdraws \$200 per month as his own salary and has the services of an office girl at \$75.

Accounts No. 6-A and 6-B are for insurance, and constitute one twelfth of the amount set up last week for prepaid insurance in account No. 6 of the "asset and liability" statement in Table 1.

Account No. 60 covers taxes that must be paid on the labor employed, including taxes on owner's salary, stenographer's salary, and all commissions and over-ride earned by the salesmen and sales manager. When a sales tax on any deal is not charged to the customer, it should be set up on the ledger sheet used for this account.

ESTIMATING DEPRECIATION

As all physical equipment owned by the business will depreciate, provision must be made to record this expense. Account No. 4-A is depreciation on truck which refers to ledger sheet No. 4, given in Table 1 last week, where the purchase of a truck for \$700 and its depreciation are recorded. The rate of depreciation for the truck is 25% a year, and one twelfth of this amount is charged off each month.

The procedure under furniture account No. 5-A is similar. On ledger sheet No. 5 (Table 1) the furniture is depreciated over a 10-year period at the rate of one twelfth

Table 3—Sales Record

Article	Customer	Address	Invoice Number	2% Total Selling Gross				
				Invoice Cost	10% Com.	Over-ride	Sales Price	Profit
Refriger.	J. Jones	131 2nd St.	6633	\$150	\$25	\$5	\$30	\$250

of 10% of its purchase price each month.

Account No. 62 covers gas, oil, and repairs for the operation of a truck. Where a man is hired to drive the truck, and do other duties, his salary should be pro-rated between the truck operation account No. 62, and another account which covers the other work he is engaged in, such as janitor service. This account, like the others, should have a separate ledger sheet showing gross expenses and payments made against the account.

Account No. 70 is for advertising, which usually includes space in the local newspaper serving the area. In many instances the manufacturer or distributor pays as much as half of the dealer's advertising, but the amount given here represents the net cost of the advertising to the dealer, in other words, the dealer's share of the advertising expense.

SETTING UP SERVICE ACCOUNT

Account No. 71 is for service. While the dealer often depends on the distributor for a great deal of service, in certain cases it is necessary to go out to satisfy a customer. Perhaps there is nothing wrong with the appliance in question, but the trip has to be made just the same.

It is very important that these service trips be recorded at so much per trip, as it costs money every time the dealer or one of his men leaves the store. These costs will vary from \$3 in the metropolitan area of a large city to \$1 in a small community.

It is the so called "hidden" losses in any business that worry the owner and are often responsible for impairment of credit or actual failure of the business. It costs money to give a customer service when it involves a trip away from the store, and for this reason these and similar services should be charged on a ledger sheet and against the individual service account covering the appliance sold.

A simple method of keeping service records is to have a card showing address, name of owner, model of equipment, and date of installation at the head and space to record all service calls on the card, together with their cost, either on a flat rate or time basis. Putting the address before the name makes it easier for the service department to identify the installation.

FINDING THE PROFIT

If we assume for the moment that we have set up all costs on the profit and loss statement and add them, the total is \$2,283. By subtracting this amount from the total sales (\$2,500) we get a balance of \$212 profit.

It must be remembered, however,

that we have not included a number of cost items which creep into the operation of any business, such as interest on money invested, sweeping compound for the store, money spent on trade publications, special shows and promotions, light bulbs, etc.

Most of these small items will be lumped in a "petty cash" account, having a fund of \$25 from which withdrawals are made on the petty cash ledger sheet as the money is spent. If we reduce the profit given at \$212 by \$50 for miscellaneous expenses, the balance is \$162 net profit for the month.

The simple accounting system given here permits expansion in any direction the dealer desires.

The important thing is that the dealer assemble all his costs, and know from week to week what his expenses are, how much he is making, and where his business actually stands. The system is not only necessary for the dealer's protection, but it is also imperative that a good system of books be kept to meet rigid governmental requirements.

No matter what type of accounting system the appliance dealer uses, the following "do's" and "don't's" will guide the operator of a successful business.

1. Things the dealer should do:
 1. Prepare a statement of his "assets and liabilities" at regular intervals.
 2. Keep a "check record" of his bank account.
 3. Tabulate accounts receivable and record on a ledger sheet.
 4. Keep a complete "inventory record" and a "sold" file.
 5. Depreciate his truck, furniture, fixtures, and tools on a proper basis.
 6. Pro-rate prepaid expenses, such as insurance and leasehold improvements on a monthly basis.
 7. Pay notes to finance companies and open accounts promptly.
 8. Keep a "weather eye" on liabilities incurred in the sale of customers' paper to finance companies.
 9. Maintain a uniform record of all sales.
 10. Prepare a "profit and loss" statement each week or month.
 11. Make accurate tax returns at the proper time.
 12. Record service costs, petty cash, and all incidental expenses.

- In addition to these "do's" are several "don't's."
1. Don't take cash out of the till without informing your bookkeeper or making the proper entry in your records.
2. Don't fail to collect all sales taxes.
3. Don't ignore contingent liabilities on customer's paper sold to finance companies.
4. Don't pay commissions before deals are "clean."

Table 4—Schedule Of Accounts Profit and Loss (Monthly Statement)

100. Sales:		
Refrigerators	\$1,000.00	
Stoves	800.00	
Radios	700.00	
Total Sales		\$2,500.00
50. Cost of Merchandise (including freight).....	\$1,500.00	
51. Commissions	300.00	
58. Operating Expenses:		
Rent	\$50.00	
Light	12.00	
Heat	10.00	
Phone	20.00	92.00
59. Salaries:		
Owner	200.00	
Stenographer	75.00	275.00
6. Insurance:		
6-A Fire 1/2 Yearly Premium.....	1.00	
6-B Auto 1/2 Yearly Premium.....	3.00	
60. Taxes:		
Social Security 1% Wages and Com. Paid.....	5.75	
State Unemployment 3% of Same.....	17.25	
Sales Taxes Not Charged to Customer.....	00.00	
61. Depreciation:		
4-A Truck 1/2 of 25% of \$700.00.....	14.50	
5-A Furniture & Fixtures 1/2 of 10% of \$500.00.....	4.50	
62. Operating Truck, Oil, Gas, Repairs.....	30.00	
70. Advertising	25.00	
71. Service Calls (5 at \$3.00).....	15.00	\$2,283.00
NET PROFIT		\$ 212.00

All the TORQUE you need
Starting Accelerating Running
FOR REFRIGERATION COMPRESSORS

Why go to the next larger size motor, just because your Refrigeration Compressor is hard to start?

Why buy a 7 1/2 H.P. motor to start a 5 H.P. job?

Century Type SCH Squirrel Cage Induction Motors provide high starting and accelerating torques in proportion to full-load torques. This saves the cost of over-motoring and does a better job.

We can't prove this with words—so we urge you to talk to the man who is using Century Type SCH Motors for Refrigeration Compressors.

For even more convincing proof—order a Century Type SCH Motor for your next job.

Call on Century Engineers...They have a world of experience that is definitely helping to you!

CENTURY ELECTRIC COMPANY
 1806 Pine Street • St. Louis, Missouri
 Offices and Stock Points in Principal Cities



HERE IS A NEW BOOK THAT WILL HELP YOU MAKE SALES RIGHT NOW!

"APPLIANCE SELLING TODAY" is edited exclusively for the appliance distributor, dealer, and salesman. This 128-page book is packed with hundreds of sales ideas, promotion methods, and merchandising plans tested and proved in actual use by dealers in all parts of the country. The table of contents

reproduced below will give you some idea of the value this book can be in helping to make your own business more profitable right now. The coupon at the bottom of the page explains how you may obtain a free copy of this timely new book with your subscription to the NEWS. Cash in on this offer now!

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APPLIANCE SELLING TODAY

A book of sales ideas, promotion plans, and management methods for the electrical appliance dealer taken from the actual experiences of dealers who have successfully applied the methods described.

BUSINESS NEWS PUBLISHING CO.
Publishers of
AIR CONDITIONING & REFRIGERATION NEWS

THERE is no author's name on this book, and for a good reason: no one person wrote it.

"Appliance Selling Today" was written out of the actual experiences of electrical appliance dealers of all types and sizes, in all parts of the country. The reports show how such dealers have successfully applied various sales and management methods. The records were compiled by staff members of AIR CONDITIONING & REFRIGERATION NEWS and its field correspondents, but the ideas and thoughts presented came from appliance dealers.

The editors of AIR CONDITIONING & REFRIGERATION NEWS believe that "Appliance Selling Today" is of greatest value to the dealer right now, for the reason that in no other period of appliance selling history has the dealer been so much "on his own."

Merchandising operations of the retailer are no longer so closely guided by the manufacturer, and intra-industry agreements have cut down on the amount of sales helps the manufacturers can offer in the way of salesmen's contests and the like.

Thus, the dealer has been left pretty much to figure out his own sales and promotion plans and to devise schemes to keep his selling operations at a high pitch. It is the hope of the editors that the description of tested methods given in "Appliance Selling Today" may be of some assistance to him in working out plans to fit his particular needs.

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☐ Enclosed is \$..... Please ☐ renew ☐ enter my subscription to AIR CONDITIONING & REFRIGERATION NEWS for one year (\$4.00 per year in United States and Possessions, Canada, and countries in the Pan-American Postal Union; \$6.00 per year for all other countries) and send me a copy of Appliance Selling Today at no additional cost.

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Name
Company
Street
City State
AC & RN 5-4-38

Air Conditioning

Air Cooling In Florist's Shop Permits Larger Floor Display, Cures Employees' Headaches

SAN FRANCISCO—That there is an important and so far little-cultivated market for air conditioning to be developed in retail flower shops is indicated by the experience of Podesta and Baldocchi, florists at 224 Grant Ave. here.

Although San Francisco has a cool, rather humid climate the year-around, this establishment, said to be the largest retail flower shop in the United States, installed a complete air-conditioning system.

Company officials recently told Cochran and St. John Ltd., the firm which installed the \$4,800 Carrier system in use, that it would pay for itself in two years in actual flower spoilage savings. At the same time, it has created much favorable comment among customers and has greatly improved employee morale.

Some idea of the volume done by the shop may be had from the fact that as many as 60 men are kept busy filling orders in the basement during certain peak holiday seasons. A staff of that size, working in close quarters and in a room filled with thousands of flowers, meant bad air.

Employees frequently went home at the end of the day with bad headaches. Now they're as fresh at night as they were in the morning, and their speed and accuracy in filling orders has shown a definite improvement.

This installation presented an unusual problem in that the first requirement was to provide an unusually high relative humidity—this as a means of keeping flowers in perfect condition. To give a relative humidity of 75%, it was necessary, for the sake of employee and customer comfort, to maintain a temperature of between 65 and 70° F.

The high humidity is saving the company large sums in prevented flower loss. At the same time it's providing for a more elaborate display on the floor—a feature that means additional sales.

Six tons of refrigeration capacity are provided for cooling. One 3-hp. compressor and one 2-hp. unit are used. When the load is light, only the larger compressor is used, the other cutting in when it is needed. Both are connected to evaporative condensers.

Investment House In Philadelphia To Sell 'Yorkaire' Portable

PHILADELPHIA — H. Vaughn Clarke & Co., a leading Philadelphia investment house, has organized a company, Yorkaire of Philadelphia, Inc., to handle distribution of portable York conditioners for installation in homes, offices, small commercial establishments, hotels, and similar places. The distributorship covers eastern Pennsylvania, southern New Jersey, and Delaware.

Mr. Clarke is president of the new corporation; Mark Godfrey and E. H. Jourdan, officials of H. Vaughn Clarke & Co., are vice presidents; and Robert N. Hey, Jr., is vice president and general sales manager. General office and display room are in the Fidelity-Philadelphia building.

Remote Control Designed For Conditioner Grilles

CLEVELAND — Young Regulator Co. has announced a new manual remote control regulator, Model 700, for use with air-conditioning grilles.

Consisting essentially of a knob, control box, stainless steel cable, and stainless steel extension spring, the regulator fits into a wall recess.

Featured is a ratchet wheel which locks the damper in position so that the wire cannot slip. Damper is regulated by turning the knob, which pulls on the wire.

Air Conditioning Movie Sound Stages Is Big Potential Market, Lewis Says

WASHINGTON, D. C.—Comfort air conditioning for Hollywood's super-sound stages was called a "necessity" by L. Logan Lewis, chief engineer of Carrier Corp., in an address before the spring convention of the Society of Motion Picture Engineers here recently. Mr. Lewis' paper was prepared in collaboration with Charles M. Wert, air-conditioning specialist for the motion picture industry.

Increase in the use of large indoor stages, and advancement in the art of making backgrounds, has brought much of the spectacular "shooting" inside, Mr. Lewis explained. Through the use of air conditioning, the term "on location" may be banished from the Hollywood vocabulary.

"Furthermore, familiarity with air conditioning may make it requested by the higher-salaried film personnel," he said. "At the present time Twentieth-Century Fox, Paramount, and Metro-Goldwyn-Mayer have a total of 25 air-conditioned sound stages."

Increase in the size of stages to "football gridiron" proportions has complicated the use of air conditioning, according to Mr. Lewis. Because of the large number of actors who are often on the stage at any given

time, many of them wearing heavy clothing, the use of air conditioning is based on the need for human comfort.

Air-conditioning systems for sound stages must be flexible enough to handle a wide variation in load, and completely sound-proof. Mr. Lewis feels that the motion picture industry presents a great potential market for air-conditioning equipment, because of the many make-shift methods employed at the present time to gain comfortable working conditions.

"Uncomfortable and unbearable conditions in unconditioned spaces are fought in many ways," Mr. Lewis said. "Doors are opened between shots for flushing the stage with air, shots are delayed, ice cakes and dry ice are brought onto the stage and shots are made at night. All these contrivances lead to a loss of time and money. Damage to costumes and make-up is self-evident, and has a dollar value."

"Probably the most conclusive evidence toward the proving of economic value for sound-stage air conditioning is the fact that air-conditioning systems are being installed for moving picture companies who have had experience with previous installations."

Bowling Foundation Shows How Cooling Attracts Kegler Patronage In Summer

CHICAGO—How air conditioning has become a boon to the bowling alley business by promoting extension of the season into the summer is indicated by reports received from several sections of the country by Bowling Foundation, Inc. here.

One report comes from the bowling alleys operated in Chicago by Ray Schalk, which averaged 500 games a day from June 1 to Sept. 1 last year. This influx of summer business is attributed to the fact that the Schalk alleys were air conditioned.

Several neighborhood bowling leagues used Schalk's alleys on Saturday and Sunday last summer, and it is reported that the demand for additional open play and practice games became so great that players had to register on a waiting list.

Beginning early in March of this year, leagues were organized to play on Schalk's alleys through the coming summer. In spite of the fact that these air-conditioned alleys are located on the far south side of Chicago, they are drawing patronage from 20 miles away, it is said.

Bowling Foundation, Inc. attempted to determine whether or not air conditioning would encourage summer bowling by examining the records of several air-conditioned establishments, and comparing them with places which did not have such equipment. In each instance, the air-conditioned establishments showed a strong increase in summer business.

Test alleys launched at Ottumwa, Iowa, and Marshalltown, Iowa, gave some indication of what the trend will be when bowling alley owners discover the profits in air conditioning, reports C. J. Cain, field manager of Bowling Foundation, Inc., in reviewing results in these two cities.

"Our experience at Ottumwa and Marshalltown definitely indicates that air conditioning can be of decided benefit to the bowling business," states Mr. Cain. "These alleys were started with everything new, from decorations to ten-pins, and from the day they were opened last May a steady stream of patronage came in. Even during the sweltering 'dog days' of midsummer, when corn belt temperatures soared up over 100° for days at a time, the crowds continued."

"The play was so extensive that the management of these concerns did not feel the need to organize leagues during the first summer. Townspeople discovered that the air-conditioned alleys were an oasis of comfort, and commented on the fact that they were the only comfortable places that could be found for miles around."

At Fresno, Calif., located in a hot interior valley, an air-conditioned alley does a steady summer business, Mr. Cain reported, and the same is true of a 32-alley establishment in Denver. At Oskaloosa, Iowa, the

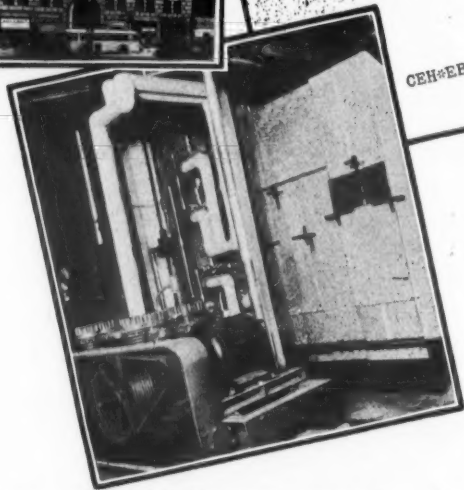
owner of a six-alley establishment has installed air conditioning, and expects to do a steady business during the coming summer.

Operators of bowling alleys have attempted to interest women in the sport, who would make use of the alleys during the afternoon, when men players are absent. Mr. Cain states that owners of air-conditioned places are finding it much easier to persuade women to patronize their parlors than those who have not installed equipment.

Although many bowling alley operators feel that the cost of air-conditioning equipment represents a large investment, when they learn that the cost of a system should be amortized over at least 10 years, they take a different attitude, says Mr. Cain.

When You Ask the Engineer About VALVES . .

A Smith & Oby Company
Installation
The Leader Building,
Cleveland
12th and 13th Floors Air
Conditioned



THE SMITH & OBY COMPANY
PLUMBING, HEATING, VENTILATING, POWER PIPING
CONTRACTORS & ENGINEERS
CARRIERS, REFRIGERATORS, AIR CONDITIONERS
AUTOMATIC VALVE SYSTEMS
FIRE PROTECTION DEVICES
3017 CARPENTERS BLDG., CLEVELAND, OHIO

March 28, 1938

Automatic Products Company
Union Building
Cleveland, Ohio

Attention: Mr. Anderson

Gentlemen:

We are pleased to advise that we have used the Automatic Products Company's solenoid valves almost exclusively in connection with our air conditioning and refrigeration installations, and can recommend them very highly.

Of the many valves we have used, there has been only one case in our knowledge where a valve became defective, and this after a year of service. Your company replaced this valve without charge or question.

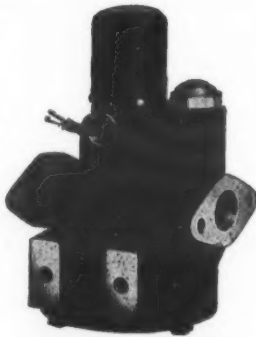
We are happy to recommend these valves to all users of solenoid valves.

Yours very truly,

THE SMITH & OBY COMPANY

C. E. Hansen, Mgr.
Air Conditioning Dept.

CARRIER Equipment
used in the Leader
Building — With
Solenoid Valves Model
70-N



Model 210
1 to 4 tons Freon
Thermostatic
Expansion Valve.



Model 205
3/8 to 2 tons Freon
Thermostatic
Expansion Valve.



Model 78
Solenoid




Model 73-RB
Solenoid



It's the man who installs and maintains the Air Conditioning Installation who can tell you of the accuracy, efficiency, leakproof-ness of A-P Valves.

Little thought is given to the details of Control Equipment and Valves by the average buyer of Air Conditioning and Refrigeration. That's why the Engineer must be so sure that this important piece of equipment will do the work expected of it.

A-P Valves are built to take on this vast responsibility and perform in such a manner that the installation is the perfectly controlled unit that efficiency and modern engineering skill demands.

You can be sure with  Thermostatic
Expansion Valves and Solenoids.

AUTOMATIC PRODUCTS COMPANY
2450 NORTH THIRTY-SECOND STREET
MILWAUKEE WISCONSIN

DEPENDABLE

THE BYWORD FOR A-P VALVES

8 Reasons Why PALCO INSULATION WOOL

is winning the "OK" of the
Refrigeration and Air Con-
ditioning Industry.

- 1. EFFICIENT**
Pecbles test shows .255 B.t.u.
- 2. PERMANENT**
Made from durable Redwood Bark.
- 3. NON-SETTLING**
Under most severe vibration.
- 4. REPELS MOISTURE**
Fibres have no capillarity.
- 5. ODOR-PROOF**
Odorless itself—does not absorb or give off odors.
- 6. VERMIN-PROOF**
Distasteful and repellent to rodents and insects.
- 7. FIRE RETARDANT**
Packed to proper density (5 lbs. cu. ft.) will not readily support combustion.
- 8. ECONOMICAL**
Light weight—Low Density—Goes Further.

Comes in Bales—Easy to Install.
Send for 16-page Insulation Manual.

THE PACIFIC LUMBER COMPANY
San Francisco Chicago
Los Angeles New York

THE INSULATION OF THE AGES

Distributor-Dealer Doings

Appliance Wholesalers, Distributors Organize Columbus Association

COLUMBUS, Ohio — Columbus wholesalers and distributors of electrical appliances are completing organization of the Columbus Electrical Appliance Wholesalers' Association. A charter was issued to the organization April 26 by Secretary of State W. J. Kennedy to operate as a non-profit organization.

Temporary officers of the new association are Lloyd A. Pixley of the Pixley Electric Supply Co., president; Marcus P. Lintner of Strong, Carlisle & Hammond Co., vice president; and R. V. Ford of Bennett's Radio Co., secretary and treasurer. Officers with R. T. Bard of Bard, Inc., and Adolph Goldenberg of the American Sales Co. comprise the board of directors.

Saginaw Dealers Sponsor 'Refrigeration Week'

SAGINAW, Mich.—Seventeen Saginaw dealers promoted "Automatic Refrigeration Week" from April 25 to May 1, cooperatively promoting their products through a special 12-page section in the Saginaw News. Advertisements of dealers were supported by pictures and news stories discussing special features of individual models.

Participating dealers were:

Better Housekeeping Shop (Gibson); Consumers Power Co. (Frigidaire); Popp Dietrich Hardware Co. (Norge); A. W. Frank (Kelvinator); Gately Co. (Stewart-Warner); German Piano Co. (Electrolux); Grinnell Bros. (Norge); Household Appliance Co. (Norge); Kessel & Rummel (Kelvinator); Montgomery Ward & Co.; Morley Bros. (Stewart-Warner); Saginaw Hardware Co. (Crosley); Schultz & Fuller (Stewart-Warner); Sears, Roebuck & Co. (Coldspot); Stevens Furniture Co. (Hotpoint); Sutton Sales Co. (General Electric); and Walz Hardware Co. (Westinghouse).

Three New Distributors Appointed By Gibson

GREENVILLE, Mich. — Appointment of three new distributors for Gibson Electric Refrigerator Corp. in the south and southwest has been announced by John L. Stephens, sales promotion manager.

The distributors are: Crumpacker Distributing Corp., Houston, Tex.; Maxwell Co., Miami, Fla.; and S. W. Preston & Co., Tampa, Jacksonville, Orlando, and Daytona Beach, Fla.

A. C. Horner Named Manager Of Burche Co. Store

HARRISBURG, Pa.—A. C. Horner, formerly with Klein Stove Co. of Philadelphia, Leonard distributor, has been appointed manager of the Burche Co., electrical appliance store here, which recently switched from Westinghouse to the distribution of General Electric products.

Mr. Horner is planning a sales drive for rural business, and is arranging sales coverage of central Pennsylvania's farm district.

Kiefer-Stewart Co. Opens Commercial Sound Dept.

INDIANAPOLIS — The Kiefer-Stewart Co., distributor for Kelvinator appliances and RCA-Victor radios, has opened a commercial sound department featuring a complete line of RCA sound equipment. Fred Gamble, formerly with the Sweeny Sound Co. at Toledo, has been placed in charge of the new department.

Officers of Kiefer-Stewart include G. Barret Moxley, president; A. Kiefer Mayer and Oscar Maurer, vice presidents, and Hugh Green, appliance sales manager.

Modern Kitchen Bureau Planned In Des Moines

DES MOINES, Iowa—A committee of six members has been named by the Electrical League of Des Moines to establish a modern kitchen bureau for the convenience of home owners, builders, architects, and contractors in planning scientific modern kitchens.

Members of the committee are L. E. Fenlon, Des Moines Electric Light Co.; Glen W. Clark, General Electric Supply Corp.; E. N. Hopkins, Meredith Publishing Co.; L. A. Bodkin, Electric Supply Co.; Joe Dean, Des Moines Electric Light Co.; and Glen Merritt, Westinghouse Electric Supply Co.

Crosley 'Mystic Kitchen' Featured By N. Y. Store

NEW YORK CITY—Woodhouse & Co., international furniture sales company, has installed a complete display of Crosley home appliances in its large store on Herald Square here.

Feature of the display is a Crosley "Mystic Kitchen," completely equipped with Shelvador refrigerator with built-in radio, a washing machine, a "Mystic Oven" gas range, minor appliances including toaster, mixer, coffee maker, and waffle iron, and all-white kitchen furnishings including work table, planning table, and wall cabinets.

Demonstrations of the various appliances are given by Miss Devine, Woodhouse home economist. Cakes and cookies are given as samples to the audiences.

A unique feature of the kitchen display is the "musical top" recording arranged so that it plays through the radio in the refrigerator to give the Shelvador sales story.

Miss Devine also demonstrates a window display of range, refrigerator, and washer. A loud speaker hook-up carries her voice into the street so that passersby are attracted.

Broyles Electric Co. Buys Building For Expansion

MARION, Ind.—Broyles Electric Co., local distributor of major household appliances, has purchased the Swanger & McClain building here to house its expanding wholesale and retail appliance business, F. O. Broyles, president, has announced.

The Broyles company will move in after the interior has been remodeled. The building is a two-story structure with basement, and is situated next to the uptown showrooms of the local light company.

R. Newcum Handles F-M In New Kirksville, Mo. Store

KIRKSVILLE, Mo. — Raymond Newcum, who has been in the refrigeration service business here, has opened a dealership at 916 E. Washington St., handling Fairbanks-Morse refrigerators and radios, Bendix washers, and air-conditioning equipment.

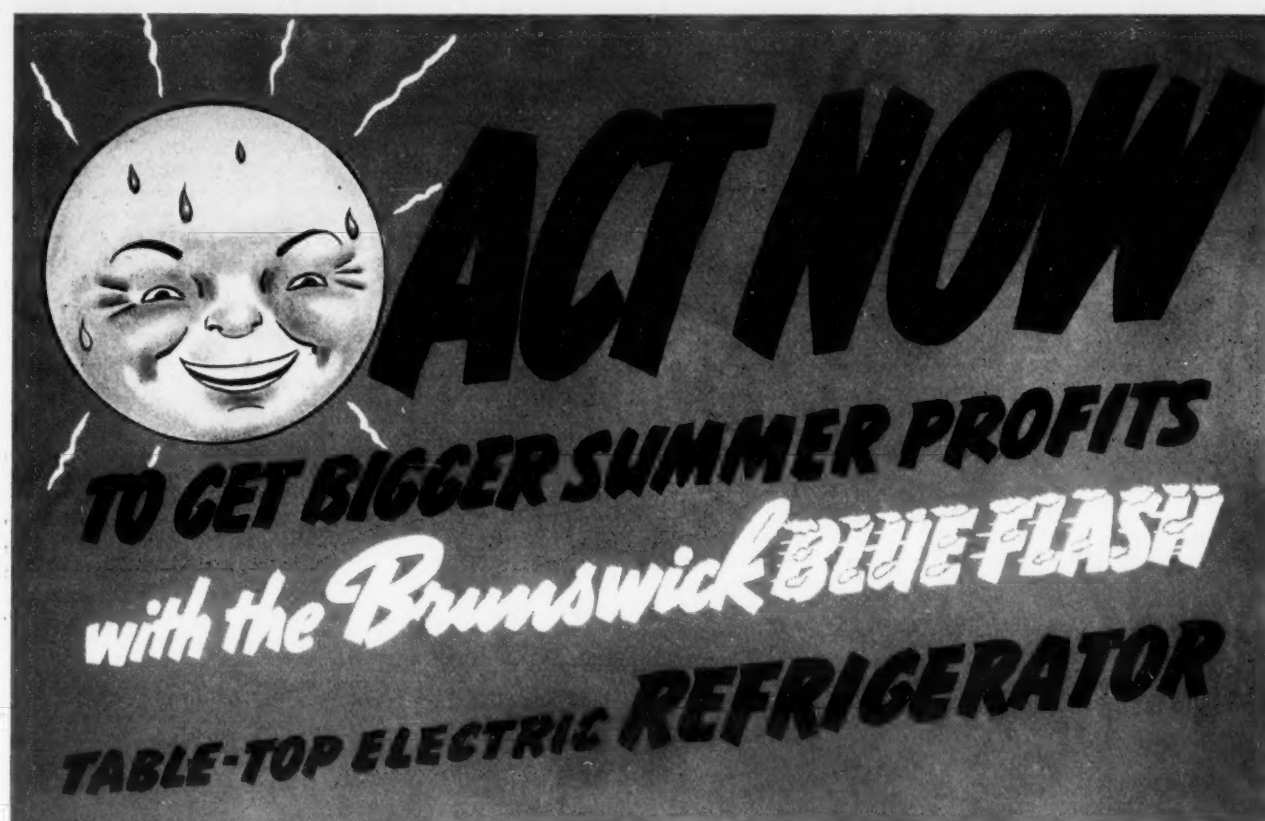
One of the firm's first air-conditioning jobs was the installation of a 10-ton system in Jones Restaurant.

Fred Hauser To Manage Mast's, Inc. Store

SEATTLE, Wash.—Fred Mast, president of Mast's, Inc., household appliance firm, has announced the appointment of Fred Hauser as manager of the company's store at 1405 Third Ave. Mr. Hauser had been with the Mast organization for the past 12 years.

Hudson Co. Adds Hotpoint

HOUSTON, Tex.—Hudson Furniture Co. has added the Hotpoint line of major household appliances to its stock of home furnishings.



Sales go up with the Thermometer

When the thermometer goes up people demand thirst quenchers and cold foods. The Blue Flash cools quicker, more economically and costs less per cubic foot than any other refrigerator on the market. Blue Flash Sales are increasing sensation-ally! Right Now is the time for you to cash in!

No Installation Problem

Easy to install. No plumbing needed. Just plug in any light socket. Place it anywhere, in the center of the store, against the wall, or behind the counter.

Saves Shelf Space

Designed to save the merchant's shelf space. It can be used as a Table, as a Counter, or as an Island Display.

Read these other Outstanding Advantages!

- Attractive, Cool Blue Enamel Finish
- Modern Styling, Properly Proportioned
- Stainless Steel, Easy Sliding Covers
- Five Slided Refrigeration Principle
- Fastest Cooling—Lowest Operating Cost
- No Cold Loss Even When Top Is Open

The Only Refrigerator that Meets the Needs of Every Merchant who Sells or Serves Foods or Beverages

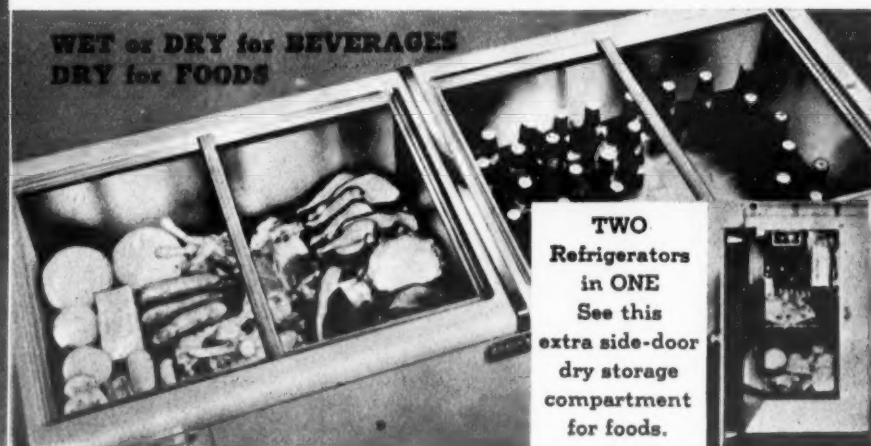
Here's a sales "Natural"! Right now—as summer begins every Main Street Merchant who serves or sells FOODS OR BEVERAGES needs a Brunswick BLUE FLASH! It's NEW—It's DIFFERENT—Nothing like it in the entire industry!

Attracts Customers—Costs Less!

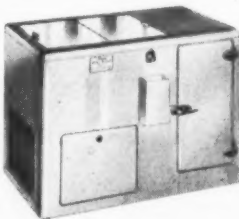
Merchants recognize the Brunswick BLUE FLASH as the only Table-Top Electric Refrigerator that offers both WET or DRY Refrigeration at an amazingly low price! It's convenient, too! And, its operating economy and cooling performance is unmatched by any other refrigerator. No wonder distributors and dealers are "going to town" with the BLUE FLASH!

Now Is the Time to Get These Profits!

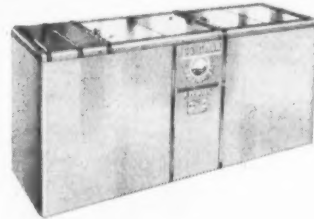
Some one will sell this new and profitable line in your territory. Why not YOU? It is recognized everywhere as the "Standout" of the industry and offers you a brand new market and source of substantial extra profits. Write for particulars, TODAY!



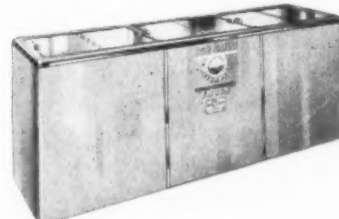
Here's the Complete Line of **BRUNSWICK BLUE FLASH** Table-Top Electric Refrigerators



MODEL B. For smaller space, this table-top model meets every need. Its single compartment can be used WET or DRY for bottled or canned BEVERAGES or DRY for FOODS. It has the extra value of the side door dry storage compartment. Total capacity approximately 9 cubic feet.



MODEL D. An extra-capacity table-top refrigerator with two storage compartments which may be used WET or DRY for bottled or canned BEVERAGES or DRY for FOODS. This model has the additional advantage of the side door dry storage compartment. Total capacity approximately 14 cubic feet.



MODEL F. Three compartments on top for WET or DRY storage for bottled or canned BEVERAGES or DRY for FOODS, with the greatest capacity and fastest cooling performance of any refrigerator on the market. This model has no side door storage compartment. Total capacity approximately 14 cubic feet.

Appliance Division, **THE BRUNSWICK-BALKE-COLLENDER CO.**
600 So. Wabash Ave., Chicago, Illinois

DEALERS! DISTRIBUTORS!

Send this Coupon for Complete Details on the money making Brunswick Blue Flash Franchise!

Appliance Division, The Brunswick-Balke-Collender Co.,
600 So. Wabash Ave., Chicago.

Tell us more about the Brunswick Blue Flash EXCLUSIVE FRANCHISE. Send full particulars.

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Firm _____

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Commercial Refrigeration

Both Customers and Investors Profit From Locker Systems, Survey Shows

YORK, Pa.—Savings on the family budget of from \$50 to \$100 per year by use of refrigerated locker storages are not uncommon, while the price per locker of building an average-sized plant is approximately \$27.50 per locker, declares A. A. Geiger of York Ice Machinery Corp., who has compiled figures on locker storage operation.

The average locker family consumes from 600 to 1,000 pounds of meat, fish, or fowl during each year, Mr. Geiger estimates. Locker storage permits the consumer to buy these commodities at low prices for consumption during the season when scarcity and higher prices are prevalent.

Price savings to families consuming various quantities of meat annually, as shown in Table 1, range from \$44 to \$80, net, depending on the amount used.

The total investment in equipment, less building and land, has been about \$20 per locker in plants installed throughout Iowa, Minnesota and Nebraska, says Mr. Geiger. This includes insulation, refrigeration, etc. Therefore, a 300-locker installation represents an investment of approxi-

mately \$6,000, plus building and land.

An additional \$5 per locker will usually erect the building, although this figure is entirely dependent upon the type of construction and materials used, Mr. Geiger points out. With the constantly advancing prices on equipment, materials and labor, it would be well to use a price per locker, for rough estimating, of \$27.50, or a total of \$8,250 for a 300-locker plant, says Mr. Geiger.

Mr. Geiger declares that studies made of more than 200 refrigerated locker systems show that the average daily consumption will run about 2½ pounds per locker per day, depending entirely upon the class of patron, average family size and whether it is located in town or country.

Investors in refrigerated locker plants serving average families using about 800 lbs. of meat, fish and fowl, annually, may expect the approximate figures shown in Table 2 to hold true, according to Mr. Geiger.

Comments Mr. Geiger with respect to the above appraisal:

"Of course, one cannot expect 100% occupancy sales and service fees all of the time, but the tabu-

lation shows what is possible if the plant size is kept down to where it should properly serve the community and if an intelligent effort is made to familiarize the community with the economy of using lockers."

To the yearly cash profit, says Mr. Geiger, must be added a value which cannot properly be estimated: the value of 300 potential customers coming to the plant for their meats, etc., at least two times every week. This presents a great opportunity for the dairy and ice cream plant, service station, or general store that may operate the locker storage plant to sell other lines of merchandise.

In the locker storage system, relates Mr. Geiger, all meats are first chilled to a temperature of 34° F. to 36° F., then reduced to roasts, steaks, chops, etc., by the custom butchers in charge; wrapped in individual parcels in parchment, and then quickly frozen in an 0° F. room before being placed in the individual steel locker, which is protected by 15° F. refrigeration. Fruits and vegetables are packed either in glass or paper cartons and quickly frozen.

With locker temperatures properly maintained and controlled, pork is preserved for periods as long as six months, beef nine months, and poultry six to eight months, carrying the renters over peak price periods for all of these products, Mr. Geiger declares.

Portable Quick-Freeze Unit Using Dry Ice Placed On Market

BROOKLYN—The dry-ice quick-freezing system developed by J. E. Bryan for Adolf Gobel, Inc. here for quick-freezing packaged cut meats and other perishable foods is now being marketed in units measuring 3 x 4 x 12 feet, with a freezing capacity of from 400 to 600 lbs. per hour.

Each unit is said to be a complete freezing plant, constructed so that one or more units can be locked into series to handle the daily required production. In this way, the unit is convertible into portable freezing plants.

Manufacturers of frosted foods can assemble one or more of the units on a flat truck, it is said, and handle freezing operations not otherwise within range of their permanent plants. Freezing can be done in the field, and at the exact time the crops are ready for harvesting. The Bryan unit also is adaptable for quick-freezing work in connection with cold storage locker systems, it is claimed.

Hill-Lipman Co. Appointed Distributor For Pelco In West Pennsylvania

PITTSBURGH—Hill-Lipman Co., 5534 Baum Blvd., has been appointed distributor of Pelco products in the western Pennsylvania territory, reports Albert E. Middleman, Pelco divisional manager in this area.

Mr. Middleman and Messrs. Rosenberg, president of Hill-Lipman, and Martin, of Commercial Credit Co., were speakers at an all-day meeting held for members and dealers of the new distributorship on April 22 at the Carlisle Club here.

New Display Case Series Introduced By Seeger

ST. PAUL—A new style of display case, known as Series 18, and being produced in an 8-foot, 10-foot, and 12-foot size, has been introduced by Seeger Refrigerator Co. as a companion to the Series 20 and 21 cases introduced about two months ago.

Same features as in the other two series are incorporated in the new case, including new finned-type coil, machine tubing sleeve, all-porcelain finish, sliding doors, triple-pane glass, and heavy-tinned bar-type shelving. The cases are available for use with Freon, sulphur dioxide, methyl chloride, or ammonia refrigerants.

Each of the three new cases is 39 inches deep and 52 inches high. Other specifications follows:

Model No.	Display Area (sq. ft.)	Display Capacity (cu. ft.)	Dry Stor. Capacity (cu. ft.)
18-8	19.6	29.22	31.02
18-10	24.82	36.57	39.1
18-12	30.02	44.52	46.9

Table 1—Estimated Annual Savings To Families Using Locker Storage Facilities

Quantity consumed	600 lbs.	800 lbs.	1,000 lbs.
Savings per pound	\$.10	\$.10	\$.10
Saving	\$60.00	\$80.00	\$100.00
Less process charge 1 cent per lb. (cutting, wrapping, and freezing)	\$ 6.00	\$ 8.00	\$10.00
	\$54.00	\$72.00	\$90.00
Less locker rental	\$10.00	\$10.00	\$10.00
Annual net saving	\$44.00	\$62.00	\$80.00

Table 2—The Locker Storage System From The Investor's Viewpoint

300 locker plant cost at \$27.50 per locker (including building, insulation, refrigeration, lockers, etc.)	\$8,250.00
300 locker rental	
250 lockers at \$10.00	\$2,500.00
50 lockers at \$12.50	625.00
240,000 lbs. service fee at 1 cent (includes grinding, cutting, wrapping, and freezing)	2,400.00
60,000-lb. sales at 2 cents	1,200.00
Total Gross Income	\$6,725.00
Power for 300 lockers at \$1.75	525.00
Water for 300 lockers at \$0.50	150.00
Custom butcher	1,200.00
Depreciation of 10%	825.00
Taxes	250.00
Paper and findings	200.00
Total Gross Expense	\$3,150.00

Tennessee River Barge To Freeze Farm Produce

GUNTERSVILLE, Ala.—A streamlined barge for quick-freezing of perishable farm products and transportation of them to major markets has been put into service on the upper reaches of the Tennessee river. It is a joint product of the University of Tennessee and the Tennessee Valley Authority. The barge is the first of its kind to be put on the river, and will be followed by others provided it proves successful.

The barge refrigerator will freeze berries, fruits, and vegetables within a few minutes, it is reported. Its capacity is 350,000 lbs. of produce.

Dairy Industry To Exhibit In Cleveland Oct. 17-24

CLEVELAND—The 1938 Dairy Industries Exposition will be held in the Cleveland Public Auditorium from Oct. 17 to 24, announces Charles W. Caldwell, assistant treasurer of the Dairy and Ice Cream Machinery and Supplies Association, Inc., which is sponsoring the event.

Rate for exhibit space at the exposition is \$2 per square foot, including a listing in the official exposition directory, booth sign, and an adequate supply of booth furniture and rugs. Automobile truck and truck body displays must be confined to "wall" booths.

Announcement... VIRGINIA Methylene Chloride is now available

To serve you better, we have added to our line of Quality Refrigerants Methylene Chloride, for use in the popular Grunow units and air-conditioning installations designed for it. The high standards of purity we have maintained in the past will apply to Virginia Methylene Chloride, available in 5 gal. cans, and in 30 and 50 gal. drums.

METHYLENE CHLORIDE
V-METH-L
EXTRA DRY ESOTOO

VIRGINIA SMELTING COMPANY
WEST NORFOLK, VA.

F. A. Eustis, Sec'y
VIRGINIA SMELTING CO., 131 State Street, Boston, Mass.
Please send prices and information on items checked

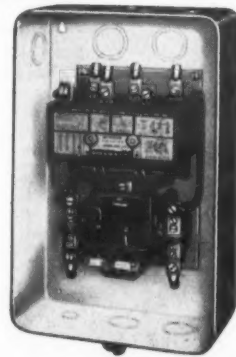
☐ Methylene Chloride ☐ Extra Dry Esotoo
☐ V-Meth-L ☐ Type filled in below

Name
Address
City State



"Wait! He only wants to see the relay trip!"

And it will trip—just as soon as it reaches the temperature that indicates "motor over-heating." These thermal relays on Allen-Bradley solenoid starters provide reliable motor protection. Then too, the double break, silver alloy contacts never require filing or dressing. The simple solenoid switch mechanism has no bearings or hinges to cause trouble. Even when line voltage conditions are bad, the starter will close tightly and remain closed, thus avoiding unnecessary shutdowns. Many knockouts, white interiors, and plenty of wiring space make installation extremely easy.



SEND FOR "THE STORY OF THE SOLENOID STARTER."

Allen-Bradley Co., 1313 S. First St., Milwaukee, Wis.

Please send me "The Story of the Solenoid Starter."

NAME COMPANY

ADDRESS

ALLEN-BRADLEY
SOLENOID MOTOR CONTROL

Commercial Refrigeration

Wayne Spinks Takes Display Cases & Bottle Coolers To Dealers In a Sound Truck

MEMPHIS, Tenn.—"Sound" merchandising methods are being used by Wayne Spinks, Norge distributor in this territory, to sell his dealers on Norge's new line of commercial refrigeration equipment.

Sample models of the new commercial line are being taken literally to the doorstep of Mr. Spinks' dealers by an International truck which is equipped with a complete sound amplification system.

"Soon as the truck enters a town," Mr. Spinks explained, "the amplifying system is put into operation, usually with some music. By the time that the truck has blared its way to the dealer's store, it has attracted the attention not only of the dealer but also of a goodly portion of the town's population."

Interior of the truck is finished like a modern showroom, with inlaid linoleum on the floor, and walls of artificial tile. Commercial equipment

on display in this truck-showroom includes a 6-ft. display case and a couple of beverage coolers.

The truck will contact all Norge dealers in the Spink territory, which covers northern Mississippi, eastern Arkansas, and southwestern Kentucky, as well as western Tennessee. In addition to the routine dealer contact work, an effort is made to have the truck in attendance at as many fairs, shows, expositions, and similar affairs as possible, where its amplifying or public address system is used for all sorts of announcements, speeches, etc.

"After the truck has completed its rounds in behalf of the distributorship," Mr. Spinks continued, "it will be made available for a week at a time to our more active and aggressive dealers, who will use it to take the commercial equipment right to the doors of their prospects, just as we brought it to them."

Dairy Firm's New Trucks Are Mechanically Cooled

EATON RAPIDS, Mich.—Four new refrigerated truck bodies for ice cream delivery have been purchased by Miller Dairy Farms here. Built by Kalamazoo Special Auto Body Co., Kalamazoo, Mich., the units are of the cab-over-engine type and are mounted on GMC F-16 chassis.

Capacity of each body is 600 gallons of ice cream, and a temperature of minus 10° F. can be maintained within them. Kold-Hold refrigerating units are used in all four.

Roof, sides, and ends of each body are insulated with seven inches of Dry-Zero "Sealpad" and blanket used in combination. Floor is insulated with cork.

'Dry System' Used in New Russ Frosted Foods Case

CHICAGO—Russ Products division of Bastian-Blessing Co. has announced production of a new frosted foods cabinet in portable models with self-contained compressors and in models with remotely installed compressors.

Dry system of refrigeration is used in all models. Features include the patented Russ "Trayveyor" sliding shelves, and an illuminated display board for the posting of frosted foods promotional pieces and individual names and prices.

Construction and insulation of the cabinet is said to permit economical maintenance of necessary low temperatures. Streamlined design makes the bottom package in the cabinet easily accessible, it is claimed.

Avery Engineering Co. Opens Office In Cincinnati

CINCINNATI—Avery Engineering Co., with headquarters in Cleveland, has opened an office in the Chamber of Commerce building here under the management of Hal K. Jennings. The company handles equipment manufactured by Worthington Pump & Machinery Corp.

Contract work in commercial refrigeration and air conditioning in this territory will be handled here.

Personnel of the company includes Lester T. Avery, president; L. B. Taylor, vice president; and Lucille M. Kimball, secretary.

New Cordley Water Cooler Designed For Offices, Plants, and Other Medium Demand Uses

NEW YORK CITY — A new Cordley electric water cooler designed for installation in offices, reception rooms, small manufacturing plants, machine shops, garages, and other medium-sized and small establishments has been announced by Cordley & Hayes.

Listed as Model T-4, the new cooler

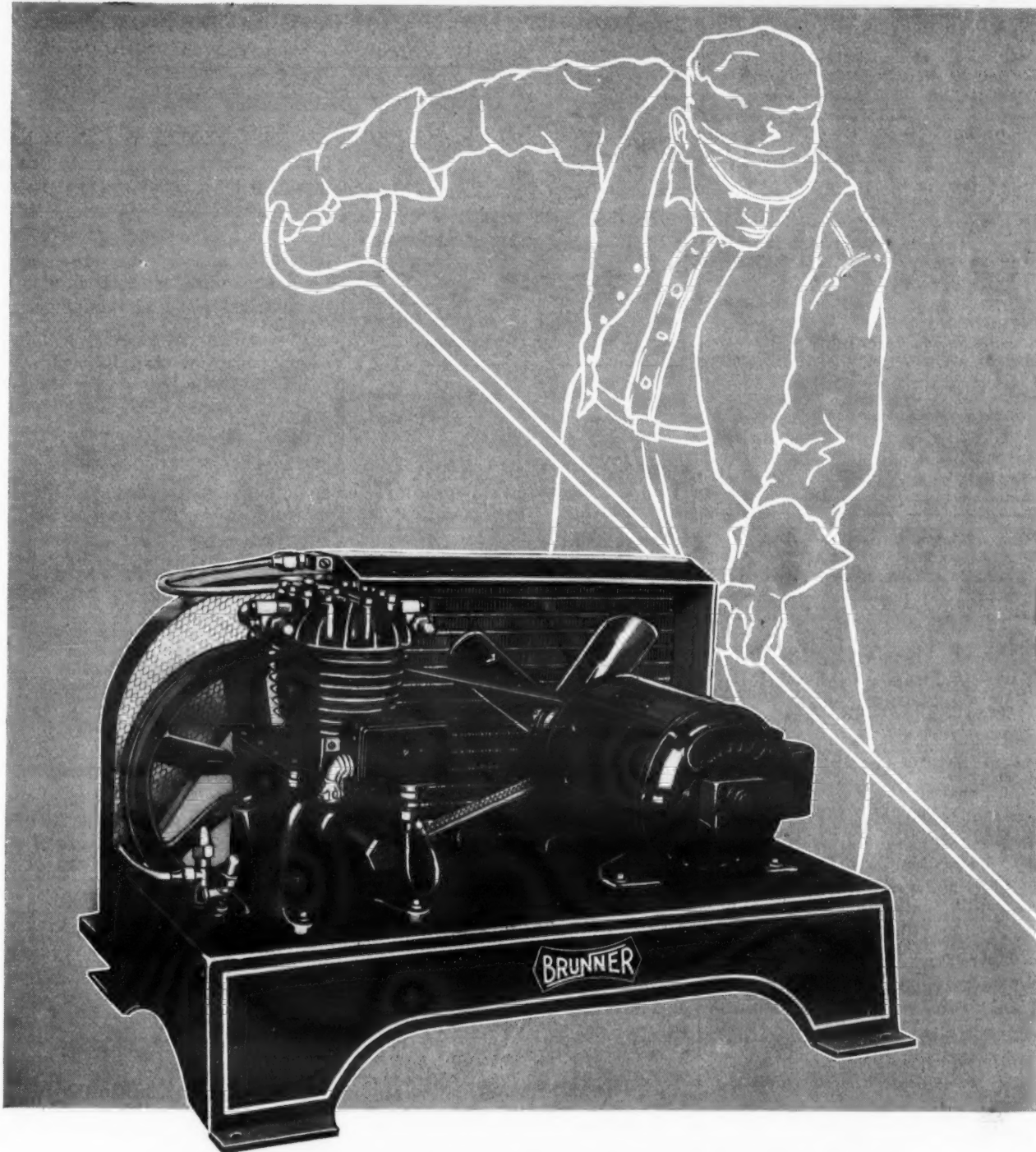
is simple and compact in design and construction, and can be installed on a floor space of 15½ sq. in.

Cooling capacity is from 3¼ to 5½ gallons an hour with a two-quart storage reserve, and is said to be ample for serving 40 to 60 persons. Construction is similar to that of other Cordley models.

Fish-Freezing Plant Under Way In East

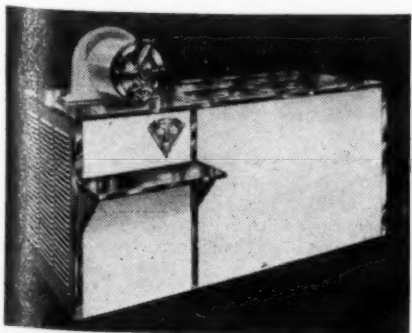
NEW BEDFORD, Mass.—A refrigeration plant to quick freeze fish fillets and seafoods is being constructed here by Atlantic Quick Freeze Co., Inc.

Freezing capacity will be 2,000 lbs. of fillets per hour. A full line of fillets and seafood, including perch, haddock, halibut, sole, cod, mackerel, and scallops will be processed.



IT IS SELDOM YOU FIND
COPPER
SO GENEROUSLY EMPLOYED!

● COPPER is an expensive metal. But of all the metals commercially practical, copper has the highest rate of heat transfer. That's why Brunner's generous use of copper for both the fins and tubes in the condenser construction is such an important feature. It means quicker radiation, more efficient condensation of the refrigerating agent—and obviously greater power economy... But why not check up personally on Brunner features like these—extra-value features which have lifted Brunner Refrigerating and Air Conditioning equipment to a solid position of quality leadership... And the Brunner line is complete—with one hundred and thirty-four condensing units plus seven compressors, in a graduated range of capacities up to 15 H. P. Catalog, fully illustrated, sent on request. Brunner Manufacturing Company, Utica, N. Y., U. S. A.



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SureCold Counter Freezers,
Dispensers, & Malt
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A Better Product at Attractive Prices
The Warner Steel Products Co.
Ottawa, Kansas
Established Over 40 Years

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FOR *economical* SERVICE

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Business Paper Functions

"THE duty of the trade and business paper is to give its readers accurately, fully, and promptly the news in their fields, with such pertinent interesting features and gossip as may seem well, and with strong editorial advice and guidance when opportunity offers."

So says H. A. Palmer of Traffic Service Corp., editor of *The Traffic World* magazine, in reviewing the results of a study he has made of some 300 selected trade, business, professional, and farm papers over a period of more than a year.

Speaking recently before Chicago Associated Business Paper members, Mr. Palmer drew some rather pointed conclusions as to the functions and opportunities of today's business press, as observed in the 300 examples which regularly came under his scrutiny.

How the News Stacks Up With These Standards

At the same time he was sharply critical of the style and policies of most business papers. His delineation of the aims and chief values of business papers coincides so closely with our own (and the standards of the News stand up so staunchly against the general criticisms he hurls) that the editors feel it worthwhile to consider them here.

Inasmuch as the NEWS does not print a "platform" at the head of its editorial page, nor is it much given to talking about itself, new readers may not fully understand its aims, purposes, and practices. Hence, this treatment.

A business paper, as Mr. Palmer views it, is "exactly the same as a newspaper, except that it is not issued so often, and deals with a more restricted field. Because its field is so restricted, it need not attempt to put forth the mass of miscellany that appears in the daily papers, for the very reason that its readers are also readers

of the daily press and they get all that kind of material in their newspapers; they look to the magazine of the business in which they are interested to give them what pertains to that business."

This, it would seem, should be a standard which most business papers would not find difficult to attain. Mr. Palmer's experience has been, however, that many papers fall far short of this standard, and that even some of the best are inadequate in some respects.

News Sense Is Of Prime Importance

How do business papers, in general, stack up alongside the standards as Mr. Palmer sees them? How does AIR CONDITIONING & REFRIGERATION NEWS stack up?

"A considerable number of even our leading publications are almost entirely devoid of a news sense, apparently," Mr. Palmer says. "They are filled with learned technical articles—all more or less valuable, no doubt, to their readers—but news is absent in many cases. Even when there is an obvious realization that news is more or less important, there seems to be no strenuous effort to print it promptly. Next week or next month will do as well as this week or this month."

"This negligence and disregard of the chief function of a business publication is often due to the fact that there is no competition in the field; or that, if there is, it is not important."

"Even so, I marvel at the complacency with which the editors of such publications ignore what to a real editor with the proper training and instincts would seem to be the extreme urge of getting all the news possible in the forms before they close. House organ, or 'kept press,' or what not, one would think the editor would feel that urge."

Speed In Reporting Is Essential

AIR CONDITIONING & REFRIGERATION NEWS always has been essentially a newspaper. Speed in reporting is secondary only to accuracy. Its aim is to be first with the latest. The "Written to be Read on Arrival" tag in the upper right-hand corner of the front page is more than just a slogan.

Forms are kept open up to the last possible minute, to catch eleventh-hour industry developments. Reports come in by air mail, telegraph, and telephone. Staff members personally cover a host of important happenings in all parts of the nation every week; and their work is supplemented by that of trustworthy correspondents in a half-hundred cities.

Every effort is pointed toward including in each issue all possible up-to-the-minute sales, engineering, and technical information, presented in the most interesting, readable form possible. Which brings us to Mr. Palmer's second general indictment of business paper practices:

"Another fault I find in many of the high-class publications that come under my eye—even those that are considered the most valuable, in a technical sense, to their readers—is that they are so entirely technical," he declares.

"In many cases it would be just as easy and as practical to have these articles written so that

others than those who have taken degrees in the subjects treated could understand them—and this without damage or offense to the more expert who are able to understand them as written."

"It seems to me that the beginner is not to be ignored in furnishing a magazine for the trade, and it is my experience also that many of those who pose as experts do not know as much as they pretend, and might be secretly pleased with a few short, easily understood words."

Technical Articles In Simple Terms

As a newspaper, the NEWS has always sought to make its technical articles conform to news standards. Long, tedious treatises have been the exception; involved technical phraseology has been translated into simpler language for quick, facile understanding.

Posted in front of every member of the editorial staff is a placard reading: "Short words, short sentences, short paragraphs. Make it clear. Make it simple."

Third fault Mr. Palmer finds with most business papers is in the makeup and conduct of their editorial pages.

"Many of the publications have no editorial columns," he says. "This is a mistake. . . . There ought to be no difference of opinion as to the value and importance of editorial opinion."

"And the editorial column ought not to be confined to technical business advice and suggestion. It should deal frankly and wisely with the political issues of the day, as related to the field in which the publication operates."

"There is some difference of opinion, even among advocates of an editorial page, as to whether the editorials ought to go outside the special field of the publication to deal with national affairs of concern to all. Personally, I believe they should, at a time like this when our institutions are threatened and it is up to every man with a voice and an audience to do what he can to bring about order from chaos."

Larger Field Of National Criticism

"Quite aside from this wider field for editorial enterprise . . . a large number of business and trade publications that do have editorial columns . . . either confine their observations to generalities about singing birds or babbling brooks, or . . . always favor the policies of government that seem to offer benefits in their particular field no matter how evil may be the effect on the country as a whole, or support the policies of their subscribers and advertisers, no matter how foolish these also may be at times."

"Much has been said in these times about the cowardice of business men and the scarcity of that rugged individuality so lauded by public speakers and so much to be admired, but the one is as present as the other is absent to the same degree among publishers of business papers as among business men themselves and citizens generally."

Strictly on a performance basis, the NEWS may well claim credit to a charter membership in the "Stick Your Neck Out" club, and at least squatter's rights in the "Go Out on a Limb" club. This applies to both government and industry problems.

The News Demonstrates Its Independence

Believing that a business paper without backbone is little more than a glorified industry house organ, the NEWS repeatedly has taken issue with both industrial and governmental trends which, to its way of thinking, were at odds with the best interests of the public and the industry.

Long-time readers may remember the part the NEWS took in the once-bitter battle of refrigerants; how, on occasion, it has opposed industry movements—often to its own financial disadvantage—which it felt would not pay the industry in the long pull; how, more recently, it has fought with every fair means at its disposal against trends in government which in its opinion would stifle initiative, increase unwise spending, and bring on bureaucracy with all its undesirable after-effects.

With Mr. Palmer, the NEWS believes that a business paper has a duty to its clients and to the public, and that performance of that duty in wise fashion leads, in the long run, to publishing prosperity.

LETTERS

Malcolm Relinquishes A Gratuitous Title

Borg-Warner International Corp.
310 South Michigan Ave., Chicago
May 2, 1938

Editor:

I attach hereto, copy of a letter received today, which is self-explanatory, and would ask that in your next edition you divest me of the title, as regards my previous placement, which you so generously bestowed upon me.

I extend my best wishes for the continued success of your splendid paper.

S. F. MALCOLM, Sales Mgr.,
Refrigeration Dept.

Melchior, Armstrong, Dessau Co.
300 Fourth Ave., New York, N. Y.
Dear Mr. Malcolm:

Congratulations on your appointment as Export Manager of Borg-Warner International.

I note in the REFRIGERATION NEWS of April 27 that a mistake has been made in referring to you as the former M.A.D. export manager. I shall, therefore, appreciate your requesting the editor of the NEWS to correct their erroneous statement in an early issue.

A. DESSAU, President

Mr. Roth Suggests To Mrs. Ketch —

Refrigeration Service, Inc.
3109 Beverly Blvd., Los Angeles
Editor:

Having read the very interesting letter from Mrs. E. A. Ketch of San Jose in the "Letters" column of the April 6 issue, I thought maybe a little more information on this subject might be enlightening.

You may remember my telling you that our company, having been in business since 1928, began operations as a service company, which operation was continued until sometime during last year. During that time we have had as many as nine service men, plus a number of shop men, employed.

We have never specifically attempted to develop the accessory business from customers for whom we did no service work. There were many cases in which we had requests for accessories from refrigerator owners, and when a problem arose such as Mrs. Ketch presented, we courteously suggested to the customer, since we did not deliver, that she come in and bring a tray with her where it could be properly matched.

Naturally, under such conditions if delivery had been furnished, such transactions could not possibly be profitable, but since no other concern could properly deliver such merchandise we felt that we should not be expected to do so either.

The angle of interest on this accessory business, however, is not customers who call up or come in of their own accord, but rather the many

service customers who are called on each week by the service man. It is here that an excellent opportunity presents itself for the sale of various accessories.

Unfortunately, service men are always hesitant to sell anything extra in connection with a service job because they feel that the average cost of service work is such as to create too much sales resistance.

We tried conducting contests of one kind or another, awarding prizes or bonuses in addition to small commissions, for the sale of accessories. Some interest was always aroused during the contest, but usually one or two men did much better than the rest, and everyone always lost all interest after the contest was over.

We finally suggested that if selling accessories caused sales resistance, that service men merely carry literature on various accessories, stamping their name and telephone number on the literature, dropping these in the customer's kitchen or on her refrigerator where they were sure to be noticed.

This plan met with some success, because it required less effort on the part of the service men, and quite a few requests for accessories were later obtained from these customers.

On each sale, of course, we either requested that the customer come to the store to purchase the item, or that it would be necessary to forward it c.o.d., including delivery charges.

I am sure with our past service experiences we can readily understand Mrs. Ketch's problem, but I feel it can be gotten around without too much expense by asking the customer to bring parts to be matched, to the service shop.

L. P. ROTH

There'll Be More Manuals For Servicemen

411 Second St.
Niagara Falls, N. Y.

Sirs:

Enclosed please find a post office money order for \$1.00 for Manual B-1 under the heading "How To Select and Install Air Conditioning Systems."

Have received the following manuals:

Master Service Household Nos. 1, 2, and 3.

Master Service Commercial C-1, C-2, and C-3.

Air Conditioning Made Easy A-1, A-2, and A-3.

The Buyer's Guide No. D-1.

I find all the above books very interesting and of great value to me as a serviceman including the AIR CONDITIONING & REFRIGERATION NEWS which is also very interesting, and hoping to see other manuals come off the ice in the near future.

ARTHUR J. MARTIN

Swiss Visitor Seeks Information

Fr. Sauter S. A.
Bale, Switzerland

Sirs:

Subscribers of your journal AIR CONDITIONING & REFRIGERATION NEWS, we beg to recur to your courtesy for the following. Our sales manager, Dr. Erich Stern, will make next June a voyage to U.S.A. in order to investigate the market regarding the extension of the refrigeration and air-conditioning field.

He will take the liberty to call also upon you and we would be much obliged to you if you could assist him with information as far as this is possible.

F. SAUTER S. A.

Interested In Dishwashers

112 East Magnolia
Auburn, Ala.

May 2, 1938

Editor:

Please send me the name of the two manufacturers of electric dishwashers referred to in your issue of April 20 of AIR CONDITIONING & REFRIGERATION NEWS.

B. A. DICKMAN

Answer: General Electric Co., Cleveland, Ohio; Westinghouse Electric & Mfg. Co., Mansfield, Ohio; Edison General Electric Appliance Co., Chicago, Ill., make electric dishwashers.

'Around the World'

Baker Ice Machine Co., Inc.
Omaha, Neb.

Editor:

Let me take this opportunity to congratulate you on the splendid booklet describing some of your travels. This is certainly well prepared and most interesting.

J. M. FERNALD,
General Manager.

Headquarters Staff Covers the Country



That AIR CONDITIONING & REFRIGERATION News is not edited from a swivel chair is graphically demonstrated by the above map, which shows travels of headquarters staff members since Jan. 1. From New York to Los Angeles, from New England to Florida, from Michigan to Georgia, headquarters staff men (their names are listed in the masthead on the

editorial page opposite) have traveled by train, plane, and automobile, to find out about the refrigeration and air-conditioning situation out in the field at first hand. Returning from these trips, they not only write the information they have gained into the paper, but they compare notes with other staff members—who have just been in a different territory—so that

all may arrive at a national picture. Thus the editorial thinking of the News is not distorted by the particular attitude of the city or territory in which it is published. Rather, it reflects the diverse thinking of many sections, and a true cross-section of national conditions is revealed by the weekly issues of this "newspaper of the industry."

'Unitized' System Used To Air Condition Plant Of Skin Lotion Manufacturer

BATAVIA, Ill.—More than 70 Trane air-conditioning units are incorporated in the mechanical equipment of the new plant of the Campana Co., maker of skin lotions and cosmetics, near Batavia.

Modern in design, and entirely windowless, the new building is constructed of masonry faced with green terra cotta and glass bricks.

The building was designed by Childs & Smith, architects of Chicago. Frank D. Chase, Inc., of Chicago was construction engineer, and Samuel R. Lewis acted as consulting mechanical engineer. The plant is the fulfillment of an idea born in the mind of E. M. Oswalt, president of the company.

Air-conditioning problems presented by this building included adequate ventilation and temperature control in the general offices, processing room, machine line room, laboratory, cafeteria, and warehouse space.

To control these varying conditions, Mr. Lewis designed a multiple unit system, in which each of the separate rooms has its own individual temperature and humidity control system from individual air-conditioning units.

21 SUSPENDED UNITS

Twenty-one large Trane suspended-type air-conditioning units, having capacities of from 3,000 to 8,000 c.f.m., were used in the Campana plant. These units are recessed into the ceiling of the building, and distribute air through ducts recessed above each floor. Units may be serviced from the bottom, and various parts removed without taking the unit from its place. All of the units contain eight-row water coils, blowers, filters, humidifiers, insulated casing, and copper drain pans.

These large units are supplemented by over 50 Trane deluxe floor-type units, which take care of lobbies, display rooms, halls, and small offices.

During the cooling season the units are supplied with cold water from a deep well. The same coils and pipe lines handle hot water during the heating season. Water is heated by means of a steam heat interchanger.

MOTOR CONTROLS

Temperature control is maintained in each of the units by a three-way motorized valve operating from wall thermostats which proportion the water according to the requirements of the unit. Air circulation is constant from continuously operating blowers.

Humidity is supplied by water sprayed into the air stream, and is controlled by humidistats. The hot water supply is governed by three-way valves. Strap-type thermostats are placed on the return line to each

of the units. These automatically close the air dampers in the event the return water drops as low as 50° F.

Heat is supplied to the water through a motorized valve from a group of 12 home-size, low-pressure boilers, connected to a common header. The boilers operate on steam pressure in the header, cutting in and out automatically. A larger boiler provides steam at 75-lb. pressure for process work. Fuel oil is burned in the boilers, and the efficiency of this multiple heating plant is said to range around 80% average. A second heat exchanger is used as a source of domestic hot water.

The cold water for summer cooling is provided by two wells, one at each end of the building. The wells are drilled to a depth of nearly 1,000 feet and supply water at 53.5° F. and 52.5° F. respectively.

Water is pumped into pressure storage tanks, then goes to the conditioners through three-way valves, and eventually reaches a storage tank in the tower. From this point the water is piped to a cascade sprinkler system for the lawn in front of the building.

During maximum summer conditions the total load is 320 tons, requiring approximately 500 g.p.m. of water.

For Information on Motors
FOR ALL TYPES OF
Air Conditioning and
Refrigeration Equipment
WRITE TO

Wagner Electric Corporation
4441 PLYMOUTH AVE. ST. LOUIS, MO.

MANAGER WANTED

Corporation engaged in foreign manufacturing plans to enter domestic and commercial refrigeration and air conditioning fields in foreign countries and expects to employ capable manager for supervision of manufacturing and merchandising abroad. Must be qualified to take full charge. Confidential treatment of applications addressed to Box 1042, Air Conditioning & Refrigeration News.

Norge In Production On New Commercial Units

DETROIT—Sales plans and the complete line of products of the commercial refrigeration department of Norge division, Borg-Warner Corp., were presented to Norge distributors in 32 cities during April.

Walter E. Landmesser, commercial sales manager, directed the series of sales meetings.

Production of commercial equipment, including display cases, utility refrigerators, beverage coolers, water coolers, and milk coolers has assumed major proportions, company officials declare.

Anaconda Copper Refrigeration Tubes



THE AMERICAN BRASS CO.
FRENCH SMALL TUBE BRANCH
General Offices: Waterbury, Conn.

Benson Furniture Co. Named Apex Distributor

SIOUX CITY, Iowa—Benson Furniture Co. has been named distributor for products of Apex-Rotarex Corp., Cleveland, in 80 counties surrounding Sioux City. A meeting of sales representatives to launch the firm's distributing activities was addressed by Apex factory representatives.

LINDERME
SEAMLESS TUBING
Sealed AND Dehydrated
LINDERME
TUBE COMPANY
CLEVELAND OHIO, U.S.A.

10 POINTS OF TEMPRITE SUPERIORITY

INDIVIDUAL TEMPERATURE CONTROL

No. 5

No matter how many fountains are used on one Temprite Multiple System of Water Cooling, each fountain has its own independent temperature control. Water temperature can be set to meet requirements of each group served—adjustment range is 15 degrees. Setting remains constant the year around, regardless of demand or weather. The first drink is cool. • Elimination of cold water circulating lines permits Temprite to reduce operating waste by as much as 60%. Costs less to install—no insulation—or special water piping. • Write for the other 9 points.

TEMPRITE PRODUCTS CORP.
55 PIQUETTE AVE., DETROIT, MICH.

LOOK AT THE PLUS+ VALUE OF Artic
REG. U.S. PAT. OFF.
(DUPONT METHYL CHLORIDE)

- 1 Small volume displacement per unit of refrigeration permitting the use of small, compact equipment.
- 2 Not corrosive to ordinary equipment.
- 3 Operates at positive pressures, even at sub-zero temperatures.
- 4 Fast cooling and quick freezing.
- 5 Gives controlled low temperatures easily and efficiently.
- 6 Thermally stable and does not decompose at any temperature existing in the refrigeration system.
- 7 Has low head pressure, adaptable to air-cooled condensers and light-weight equipment.
- 8 Economical of power.
- 9 Handled, serviced with ease.
- 10 Easy to "hold"—comparatively low leakage.
- 11 Easy to engineer—no unusual design problems.



ARTIC—the Preferred Refrigerant for Service Work



E. I. Du Pont de Nemours & Co., Inc.
The R. & H. Chemicals Dept., Wilmington, Del.

Service

Gaskets Reinforced On Job With Aid Of New Material

NEWARK, N. J.—"Bindedge," a channel-shaped, flexible metal strip produced in 25-foot coils and designed for reinforcing gaskets on the job, is being made by the Azor Corp.

Made in three sizes for binding material of thicknesses ranging from $\frac{1}{32}$ to $\frac{1}{4}$ -inch, Bindedge has serrated edges and preformed teeth, and is fitted around gasket openings after the gasket has been cut.

In most gasket materials, it is said, the teeth of the Bindedge can be started with the fingers and then clamped in firmly to form a protective binding all around. Ends of the strip may be butted together or slightly overlapped.

Harry Boe Is Promoted By Westinghouse

PITTSBURGH—Harry F. Boe, commercial manager of Westinghouse Electric & Mfg. Co. here, has been appointed manager of the service department of the company to succeed W. K. Dunlap, who has retired.

Newest Gilmer Catalog Lists 4,450 Belt Models

PHILADELPHIA—L. H. Gilmer Co. has announced its 1938 belt catalog, including a refrigerator belt section listing more than 4,450 models in 135 makes.

Belts for household and commercial refrigeration units up to 3 hp., water coolers, room coolers, milk coolers, and bottle coolers are listed in the refrigerator section.

In addition, belt listings are given for 247 makes of household washing machines, ironers, beer pumps, stokers, oil burners, water pumps, and woodworking machines.

Two assortments of 35 selected belts for leading makes of refrigerators and washers are described, and an arrangement of belt numbers by groups according to units serviced and a convenient belt-length and cross-section chart are included.

Solvent Maker Opens Branch On West Coast

HUNTINGTON PARK, Calif.—The Detroit Rex Products Co., Detroit, manufacturer of degreasing machines, solvents, cleaners, and strippers, has opened a branch office at 5905 Pacific Blvd. here.

Direct-Mail To Owners Boosts Oakland Firm's Service Business

OAKLAND, Calif.—Consistent direct-mail advertising of a flat-rate cleaning and inspection service on household refrigerators is responsible for a large part of the service business done by Refrigeration Specialists here.

Printed postcards are mailed out at the rate of about 500 a month, to selected groups in a mailing list of several thousand names which has been built up over a period of years.

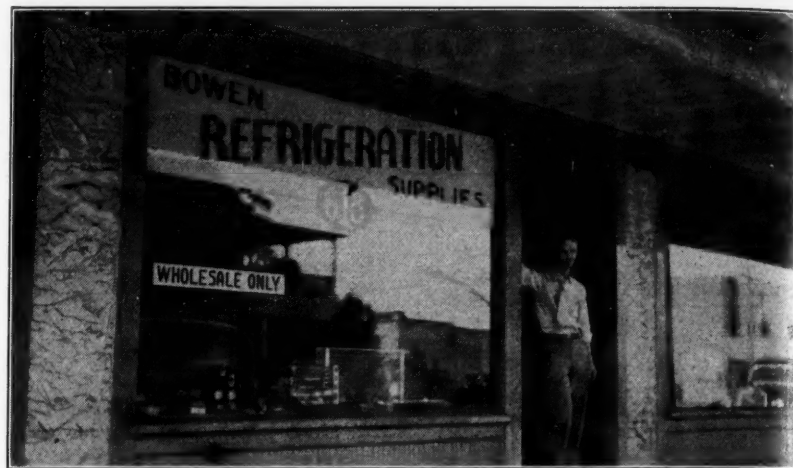
The offer of a cleaning and inspection service for \$2, not including parts or extra labor, is printed on the cards. This arrangement nets the company a small profit on inspection and cleaning labor. Its major value, however, has been in helping the company obtain many additional preventive maintenance jobs, as well as much major repair work.

Mailings bring an immediate call response of about 6%, says E. W. Andrews, treasurer.

Fillo Named Sales Engineer For White-Rodgers Co.

ST. LOUIS—Frank Fillo, former district manager here for Minneapolis-Honeywell Regulator Co., has been appointed sales engineer for White-Rodgers Electric Co., manufacturer of "hydraulic action" controls.

A New Jobber Store In Florida



Manager J. Barney stands in the doorway of Bowen Refrigeration Supplies, Inc.'s new branch store at 618 Twiggs St., Tampa, Fla., ready to greet his customers. The Bowen company, formerly M. D. Patterson Co., has headquarters in Atlanta.

Engineering Data Given In New Peerless Book

CHICAGO—Peerless of America, Inc., has just issued the first edition of its new 1938 refrigeration products catalog, a 60-page, two-color book containing complete engineering and sales information on its products.

Considerable information also is given about commercial refrigeration in general and fin coils in particular. Methods of determining the amount of coil surface necessary to properly cool a given fixture, and hints on various installation problems are presented.

Copies of the catalog are available at any of the three Peerless factories or from jobbers handling Peerless equipment.

Refrigerated Truck Solves Arizona Packer's Problems

PHOENIX, Ariz.—A semi-trailer refrigerated with dry ice to maintain a temperature of 45° F. has solved the problem of covering a 600-mile meat distribution route twice a week for Tovrea Packing Co. here.

Manned by a salesman and a driver-helper, the truck is a traveling meat salesroom carrying 10 tons of properly preserved meats of all types.

Advantages of this delivery system, as listed by Phil E. Tovrea, president of the company, are: better condition of products on delivery; increased dealer goodwill through improved service; increased business through such service and because of extra items carried on trucks; personal supervision of order of deliveries by salesmen, eliminating errors.



Dayton V-BELTS


Silent, vibrationless, dependable, long-lasting. Powerful grip prevents slippage. A nearby distributor carries a complete stock for appliances and machines.

THE DAYTON RUBBER MFG. CO., DAYTON, OHIO

World's Largest Manufacturer of V-Belts

MOST Convenient

A HANDY SIZE FOR EVERY NEED



ANSUL

SULPHUR DIOXIDE

METHYL CHLORIDE

ANSUL CHEMICAL COMPANY

MARINETTE, WISCONSIN

Service Engineers Of Central N. Y. Hear Factory Engineers

SYRACUSE, N. Y.—Members of central New York Chapter No. 1 of the Refrigeration Service Engineers' Society heard addresses by representatives of controls manufacturers, refrigerant producers, and belt makers at their meetings during February and March, reports Secretary Maurice H. Schwartzberg.

At the Feb. 14 meeting, J. W. Stevens of Minneapolis-Honeywell Regulator Co. explained and demonstrated the operation of the company's new control equipment for regulating both temperature and humidity of business houses, regardless of variations in the occupancy load.

John R. Eldridge and David E. Williamson of Virginia Smelting Co. were speakers at the organization's Feb. 28 meeting, at which moving pictures of refrigerant manufacturing operations, factory and laboratory scenes, and tips on how to handle refrigerants were shown.

D. A. McDougall of Dayton Rubber Mfg. Co. was speaker at the March 14 meeting of the chapter, at which new-type products now being manufactured by the company were shown and discussed with the aid of lantern slides.

Representatives of Detroit Lubricator Co. and Ranco, Inc., shared the speakers' platform at the chapter's March 28 meeting, at which new products for use in the household refrigerator field were explained, and field service instruction given.

Harold Persett, president of the local R.S.E.S. chapter, and George Davenport assisted in the organization of the Utica chapter of the society on March 25. Officers elected to guide the new chapter were:

President, Fred Stickels; secretary, C. M. Doyle; and treasurer, Harold Burton.

Stern & Co. To Sell 'Sani-Cold' Models

PHILADELPHIA—Stern & Co., Philadelphia department store, has been appointed exclusive dealer here for the Sani-Cold electric refrigerator, manufactured by Heinz & Munschauer, Buffalo, N. Y. In its display at the recent Electrical Exposition, the store featured a 6-cu. ft. model priced at \$98.

SUPPLIES • PARTS • TOOLS

Refrigeration — Air Conditioning
Oil Burner — Stoker

Write for Our New Catalog

VINCENT BRASS & COPPER CO.

100 North Second St., Minneapolis, Minn.

KERO TEST

Valves and Fittings

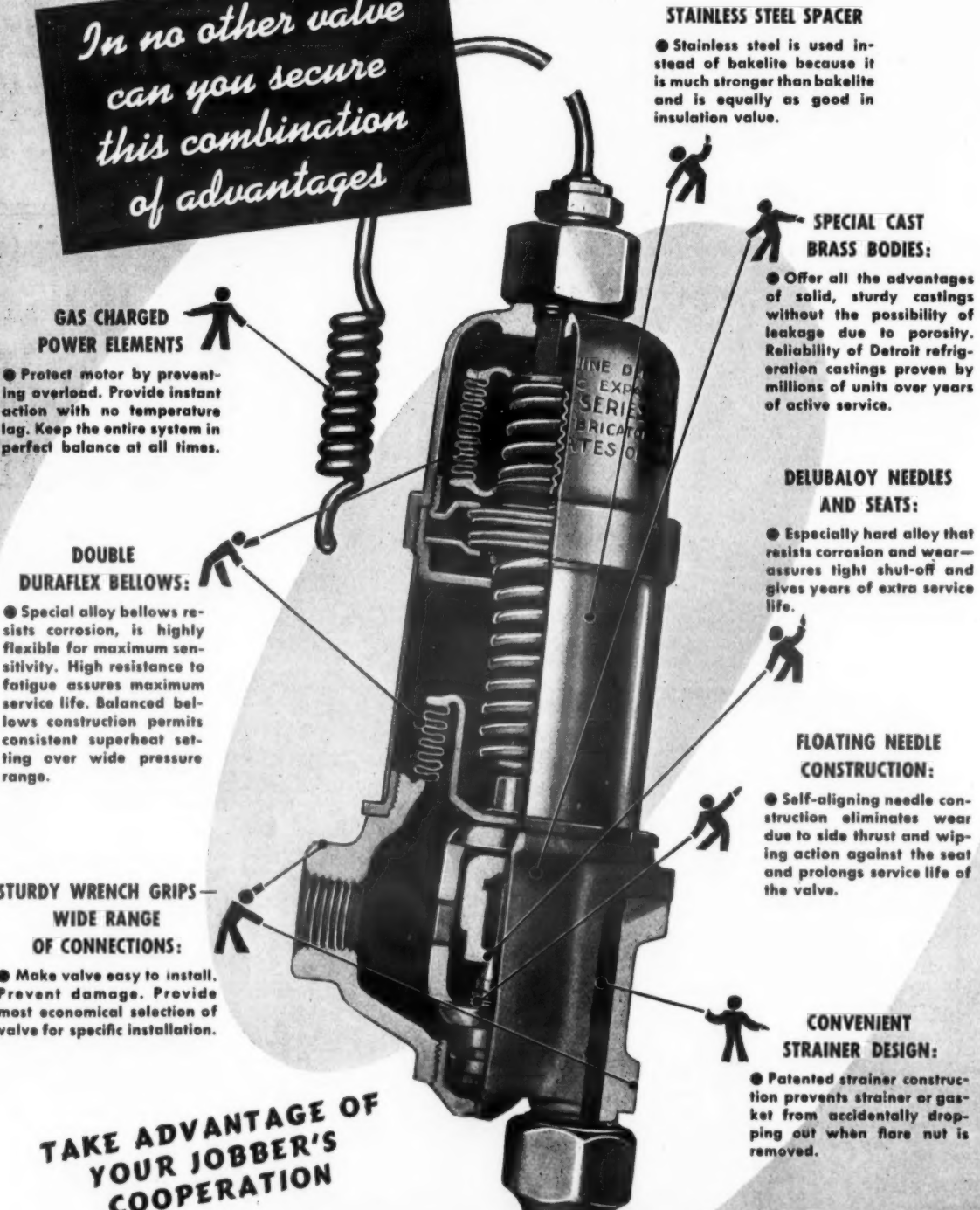
The Standard of the Industry

Kerotest Manufacturing Co.

Pittsburgh, Pa.

WHY DETROIT VALVES GIVE BETTER PERFORMANCE

In no other valve can you secure this combination of advantages



GAS CHARGED POWER ELEMENTS

- Protect motor by preventing overload. Provide instant action with no temperature lag. Keep the entire system in perfect balance at all times.

DOUBLE DURAFLEX BELLOWS:

- Special alloy bellows resists corrosion, is highly flexible for maximum sensitivity. High resistance to fatigue assures maximum service life. Balanced bellows construction permits consistent superheat setting over wide pressure range.

STAINLESS STEEL SPACER

- Stainless steel is used instead of bakelite because it is much stronger than bakelite and is equally as good in insulation value.

SPECIAL CAST BRASS BODIES:

- Offer all the advantages of solid, sturdy castings without the possibility of leakage due to porosity. Reliability of Detroit refrigeration castings proven by millions of units over years of active service.

DELUBALOY NEEDLES AND SEATS:

- Especially hard alloy that resists corrosion and wear—assures tight shut-off and gives years of extra service life.

FLOATING NEEDLE CONSTRUCTION:

- Self-aligning needle construction eliminates wear due to side thrust and wiping action against the seat and prolongs service life of the valve.

CONVENIENT STRAINER DESIGN:

- Patented strainer construction prevents strainer or gasket from accidentally dropping out when flare nut is removed.

STURDY WRENCH GRIPS—WIDE RANGE OF CONNECTIONS:

- Make valve easy to install. Prevent damage. Provide most economical selection of valve for specific installation.

TAKE ADVANTAGE OF YOUR JOBBER'S COOPERATION

DETROIT LUBRICATOR COMPANY

DETROIT, MICHIGAN, U. S. A. • 5900 TRUMBULL AVE.

NEW YORK, N. Y.—40 WEST 40th ST. • CHICAGO, ILL.—816 S. Michigan Ave.

DIVISION OF AMERICAN RADIATOR & STANDARD SANITARY CORPORATION

Canadian Representative—RAILWAY AND ENGINEERING SPECIALTIES LIMITED, Montreal, Toronto, Winnipeg

Air Conditioning

Westinghouse Sets Up Offices On 'Precipitron' In Cleveland Area

CLEVELAND — Following five years of research and experimentation in electrically precipitating dust out of the air, Westinghouse Electric & Mfg. Co. is centralizing the manufacture and sale of its "Precipitron" in its Cleveland division.

F. R. Kohnstamm, manager of the Cleveland division, which also produces all Westinghouse lighting equipment, will supervise all activities in connection with the new air cleaning development. George F. Begoon, formerly with the company's new product division in East Pittsburgh, Pa., has been named sales manager.

Precipitron units have been installed in a Pittsburgh hospital, for treating hay-fever sufferers; and in the Homer Laughlin China plant in Newell, W. Va., for the recovery of glaze used in an automatic glazing machine. Office buildings using the units include the Field Building, Chicago; the new Woolworth Building, New York City; the Bureau of Standards Building, Washington, D. C., and telephone exchanges in New York City and Pittsburgh.

Air-Conditioning System Reduces Troubles For Boston Printing Firm

BOSTON — An air-conditioning system consisting of three 15-hp. refrigerating machines, a 10-hp. fan, cooling and heating coils, and a bank of filters has practically completely eliminated printing and lithographing troubles for Rust Craft Publishers here.

Maintaining a temperature of 70° F. and a relative humidity of 45%, the system not only keeps the humidity at the desired level, but also creates clean, comfortable working conditions for the employees, resulting in greater efficiency and better quality of work, say Rust-Craft officials.

Before the air-conditioning system was installed, Rust Craft had considerable trouble caused by excess humidity in printing and lithographic production. In color printing particularly, uniform results are important, and precision is necessary to a thousandth of an inch or less.

Close atmospheric control made possible by air conditioning means a minimum of stretching or shrinking in the paper, a minimum of variation in consistency, clean plates, and uniform roller diameters, the company asserts.

Existing System Adopted In Seafood Restaurant Job

PHILADELPHIA—Two 15-hp. condensing units will provide the cooling in an air-conditioning system to be installed in Walters' Sea Food Restaurant here.

A 3-hp. evaporative condenser will be installed to reduce water consumption, and a ventilating fan now in use will be adapted to circulate air throughout the restaurant.

S. Dreyfous, president of the restaurant, said that the contract for the installation has been made early to assure comfort in the establishment on the first warm day.

Special 'Soundproofing' Features Installation For CBS Studios

HOLLYWOOD, Calif. — Air-conditioning equipment completely insulated against any sound which would interrupt programs will provide comfort for screen and radio stars in the new \$2,000,000 studios of Columbia Broadcasting Co. at Columbia Square, formally dedicated last week.

Engineers made use of every known method of reducing air and mechanical noise in the system, which provides a complete air change every 10 minutes in all parts of the entire building.

Fans operate on "silent" bearings at reduced speed. The air ducts are larger than normally required, in order that a sufficient quantity of air may be delivered to the building at reduced velocity. The mile-and-a-quarter of ductwork ranges in size from 60 x 40 inches to the 10 x 6-inch standard ducts used for the interior offices.

Eighty-five thousand pounds of sheet metal were used in forming the duct system, which is insulated on the inside with acoustical materials and on the outside with rock wool.

Capacity of the system is said to be great enough to supply sufficient cooling for 6,000 domestic refrigerators in summer, and to supply heat for 200 homes in winter.

Carrier Places 'Graduates' With Dealers In Field

SYRACUSE, N. Y.—One hundred and nine graduates of the first air-conditioning class to be held in the local plant of Carrier Corp. have been placed in engineering positions with either dealers or the company itself, L. R. Boulware, vice president and general manager, has announced.

Mr. Boulware said that 400 engineers have been trained in Carrier's five classes in the past 18 months, all of them being employed by Carrier dealers or by the company for work in this country and abroad.

Classes will continue to supply trained air-conditioning engineers, despite general business conditions, he said.

Courses, which are under the supervision of Willis H. Carrier, chairman of the board, last for 10 weeks and cover air conditioning, refrigeration, and unit heating, stressing residential, unit air conditioners, and industrial applications.

Conditioning Shifts Load Peak For Memphis Utility

MEMPHIS, Tenn.—So many air-conditioning installations are being made here that within two or three years the peak load of Memphis Power & Light Co. will occur in summer rather than in winter, predicts W. H. McInnis, general sales manager of the utility.

McKenney Handles York In California Area

BAKERSFIELD, Calif. — William M. McKenney has been appointed Kern county distributor for York air-conditioning equipment. D. R. Simpson has assumed charge of the cooling division of the McKenney firm.

'Slide Rule' Developed For Vital Calculations

CHICAGO—Use of the psychrometric chart and many psychrometric formulas have been simplified by the "Air Condition Calculator," a pocket-size slide rule device recently introduced by Calculator Specialties Co. here.

The calculator was developed by B. A. Johnson, refrigeration engineer now connected with the Peoples Gas Light & Coke Co. of Chicago.

The calculator makes possible the accurate determination of all of the important properties of air by a simple process. Instead of referring to the psychrometric chart and following several lines on a graph, results are obtained by a simple manipulation of a slide.

TWO SETS OF SCALES

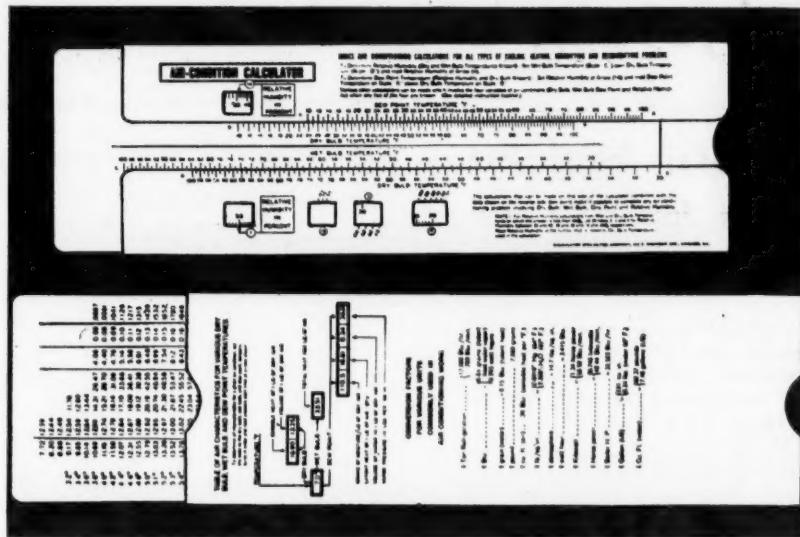
On the face of the calculator are two sets of scales, the first scale combining relationship between dry and wet-bulb temperatures and the second the relationship between dry-bulb and dewpoint temperatures to obtain relative humidity.

This combination of scales makes it possible to obtain the three temperature values when only two of them are known, or when one is known together with the relative humidity.

After these values are obtained, it is then possible to obtain the other properties of air by referring to the table of air characteristics on the back of the calculator.

First, the slide is set so that the dry-bulb temperature appears in the

Psychrometric Chart In New Form



Front and back views of the "Air-Conditioning Calculator," designed to speed up estimating work.

temperature window. With this setting the sensible heat of 1 lb. of air and the volume of 1 lb. of dry air shows in the first two windows as indicated by the dry-bulb arrows.

USING THE SLIDE

Next, the slide is set so that the wet-bulb temperature appears in the temperature window. With this setting the total heat of 1 lb. of air shows in the window indicated by the wet-bulb arrow.

The slide is then set so that the dewpoint temperature appears in the temperature window. With this setting the grains of moisture, latent

heat, volume of vapor, and vapor pressure appear in the windows indicated by the dewpoint arrows.

With these facts at hand, the engineer can calculate any increase or decrease in sensible heat, latent heat, or relative humidities; make moisture and volume calculations; and obtain data necessary to arrive at design conditions of any air-conditioning system.

While the calculator employs the principles established by the psychrometric chart, the engineer gets several direct readings at one time, a more rapid procedure than tracing lines on a chart.

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Service Methods

Service Instructions For Servel Hermetic Household Refrigerator Units

BY K. M. NEWCUM

Editor's Note: This is the first instalment of an article which provides service instructions on the Servel Hermetic household electric refrigerator.

This article is one of several dealing with service information on "specific makes and models" which will be put together to make up Manual No. 4 of the Master Household Refrigeration Service Manuals, written by K. M. Newcum.

The cycle of operation and refrigerant circuit of the Servel Hermetic is shown in Fig. 322. The refrigerant circuit through the system is given in the following paragraphs.

The liquid refrigerant is fed into the evaporator through the choke or capillary tube. The principle and operation of the capillary tube is fully explained in paragraph 67B, page 103, of Manual No. 1.

The refrigerant vapor from the top of the evaporator is drawn out through the suction line by the action of the compressor. The space around the motor and compressor beneath

the dome is used as a reserve space for suction vapor. The compressor forces the vapor into the condenser, which is the natural draft type. The vapor is condensed and the liquid stored in the bottom of the condenser, from where it is fed via the liquid line to the capillary tube to complete the circuit.

Servel Hermetic Condensing Unit

From Figs. 323, 324, 325, and 326 the details of the compressor and motor unit (condensing unit) may be studied.

The unit consists of a specially designed vertical electric motor directly connected to a horizontal reciprocating pump through a hollow counter-balanced crankshaft. The crank pin engages a cross-head which slides in the cross-head guide. Cylinder assembly reciprocates on the fixed piston.

The motor and pump assembly are sealed under the dome as may be noted in Fig. 326. The cross-head acts as a mechanically operated intake valve which delivers the vapor to the cylinder. Just before the cylinder gets to the end of the stroke the piston uncovers a slot in the cylinder and fills the cylinder. The vapor is discharged from the cylinder chamber on the compression stroke and is forced through the hollow piston into the condenser.

The oil pressure pump cylinder is formed by a projection on the cross-head and the piston is fastened to the end of the cross-head guide (see Fig. 326).

Slots cut into the crank pin constitute the suction and discharge valves of the oil pump. These slots connect to the oil intake pipe and the hollow shaft. The oil is forced to the bearings through suitably located holes and oil grooves.

When the unit is started a magnetic field is set up. This magnetic field

This permits the motor to start the (Continued on Page 17, Column 1)

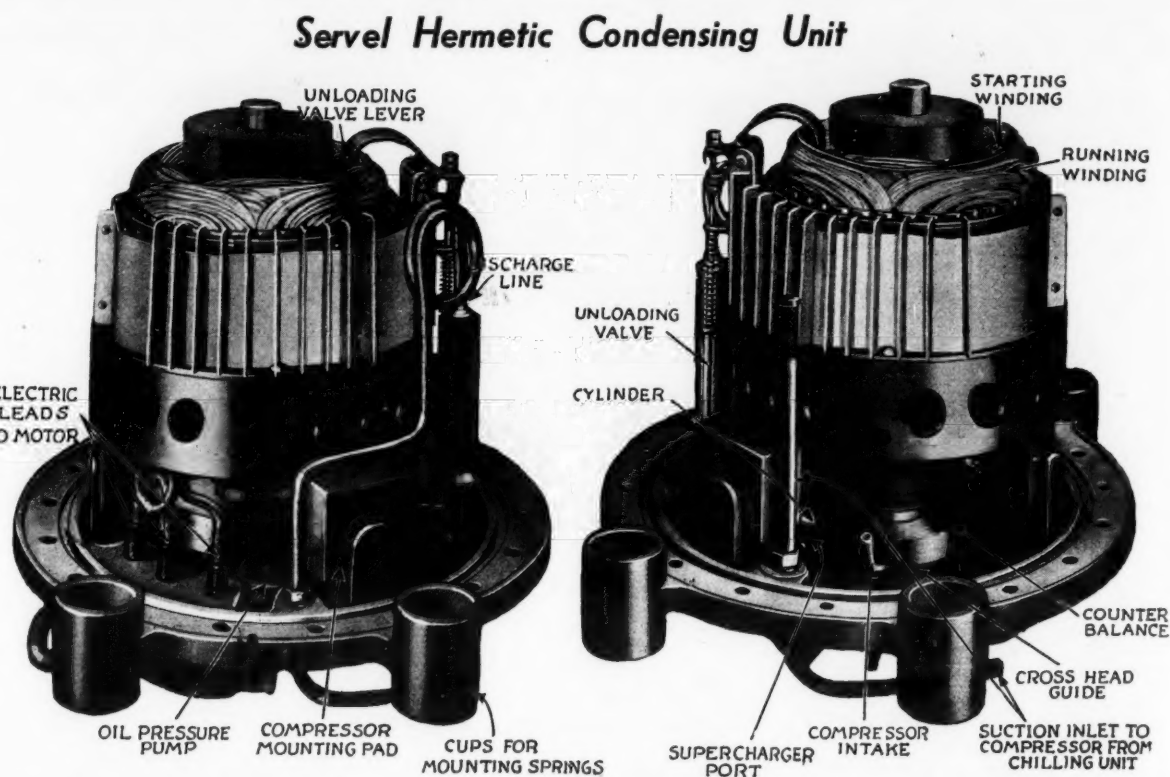


Fig. 323 (left) and Fig. 324 (right) show in detail the condensing unit used on Servel Hermetic models. Additional details are shown in Figs. 325 and 326.

Details Of Servel Hermetic Unit

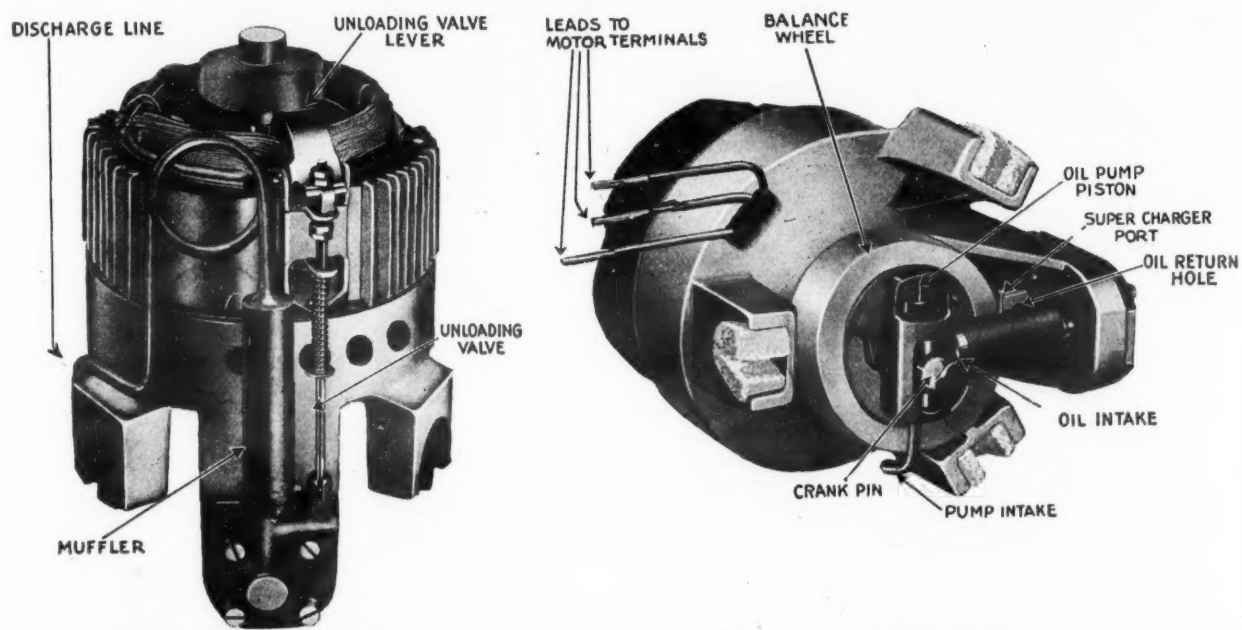


Fig. 325 (left) and Fig. 326 (right) show additional detail drawings of the Servel Hermetic compressor and condensing unit. The motor and pump assembly, which is sealed under the dome, is shown in Fig. 326.

Servel Hermetic Cycle

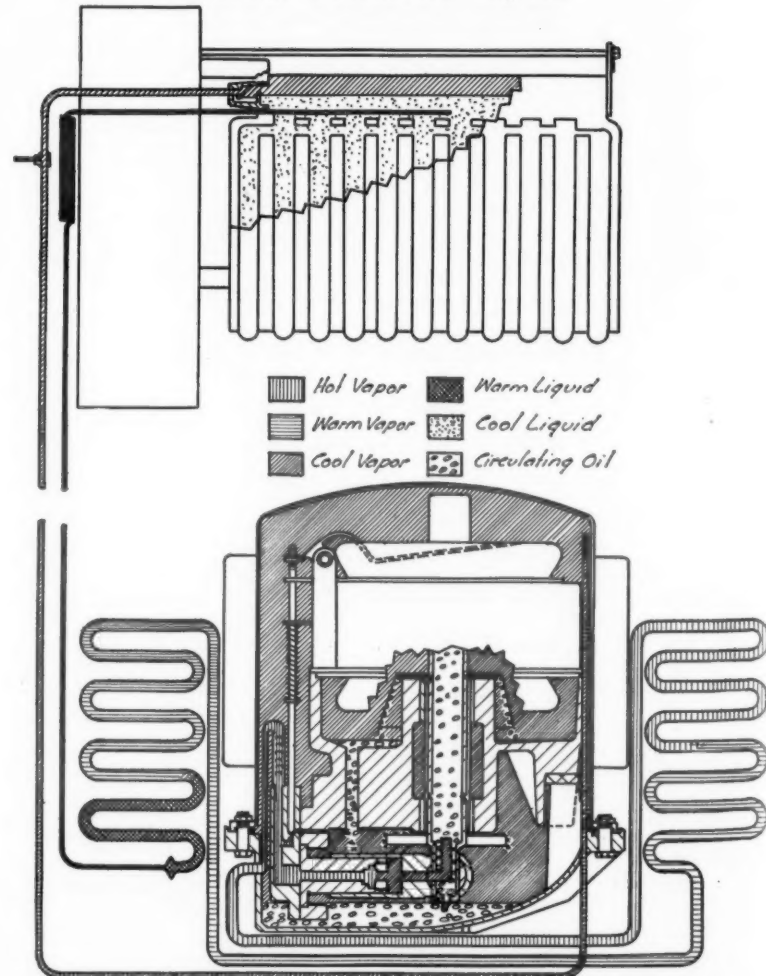


Fig. 322—Cycle of operation and refrigerant circuit.

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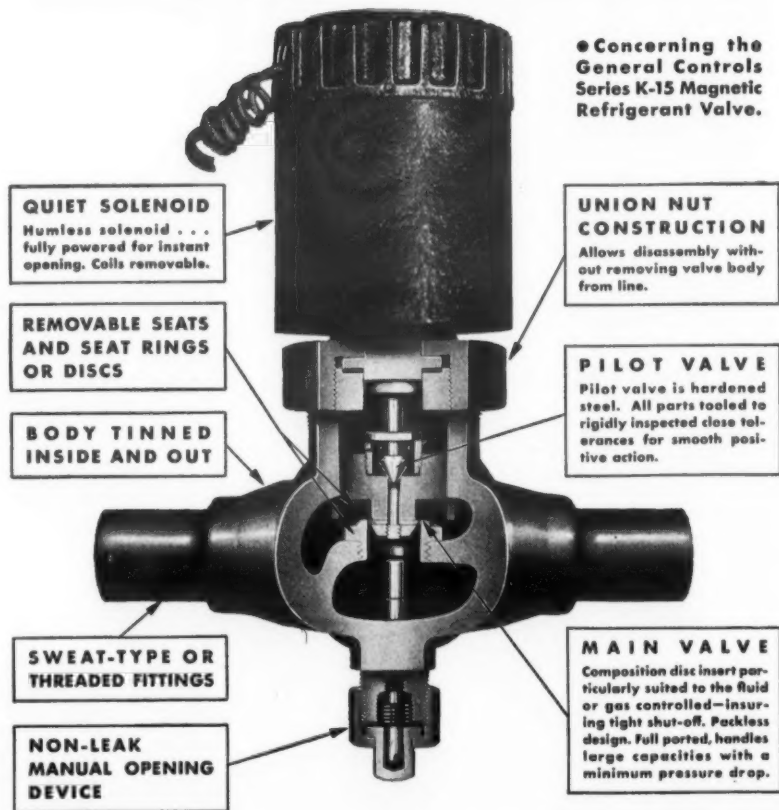
Since moisture gets trapped, often, in the intricate passages of refrigerating mechanisms in spite of careful baking and handling, why not build in a cartridge of Activated Alumina on every unit? ALUMINUM ORE COMPANY, (Sales Agent: ALUMINUM COMPANY OF AMERICA, 1908 Gulf Building, Pittsburgh, Pennsylvania.)



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Control Assembly

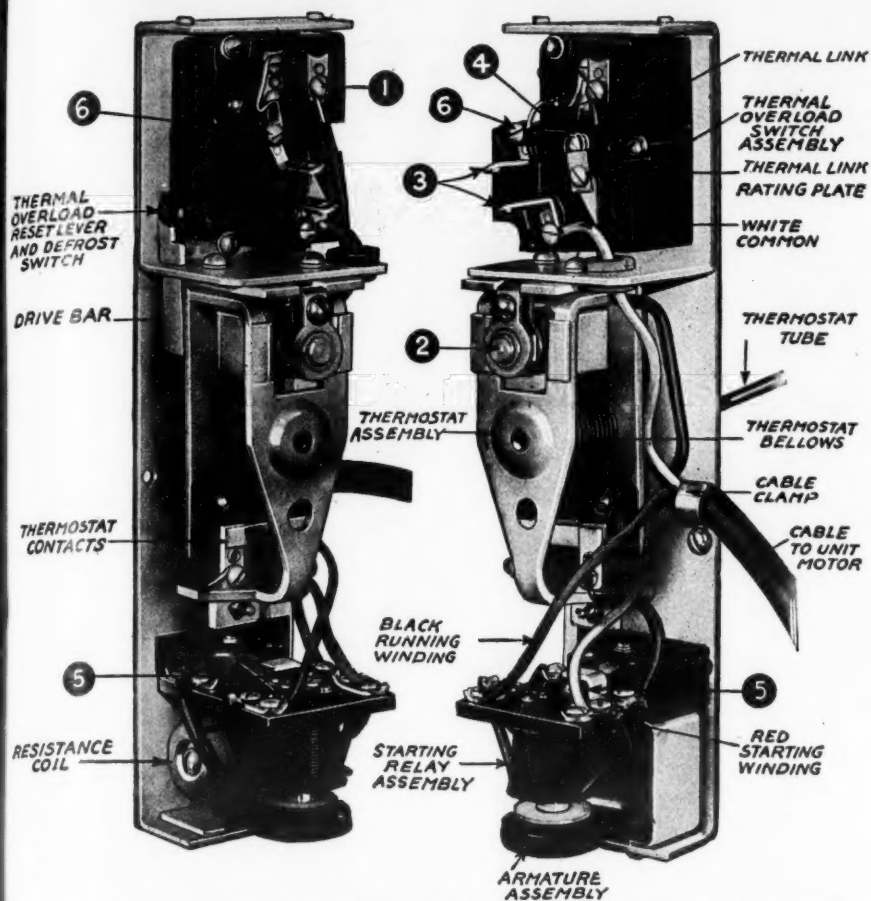


Fig. 328 (left) and Fig. 329 (right) show two views of the Cutler-Hammer control used in Servel Hermetic units. This control consists of a thermostat assembly, thermal overload switch assembly, and starting relay assembly.

Thermostat and Switch Assembly Used In Control On Servel Hermetic Units

(Continued from Page 16, Column 3) pump without load, because with the unloader open, the pressures on the high and low sides are equal. When the motor gains speed the magnetic field disappears and the unloading valve returns to the closed position. With the unloader closed the pump operates in the usual manner to remove the vapor from the dome and evaporator.

The arrangement of the condensing unit, evaporator, and other parts in the cabinet may be observed from Fig. 327.

Thermostat and Switch Assembly

The control switch, which is shown in Figs. 328 and 329, is mounted on the unit frame and located in the unit compartment or flue at back of refrigerator. It consists of the following principal parts:

1. A thermostat assembly to automatically control the starting and stopping of the compressor.
2. A thermal overload switch assembly to protect the motor against damage from low voltage or overload. Under overload conditions the overload switch will automatically open the circuit. The circuit will remain open until manually reset by turning pointer on temperature control to off—then to chilling.
3. A starting relay assembly that automatically closes the circuit

through the starting winding of the motor until the motor speed has reached a pre-determined point at which time the starting winding circuit is automatically opened.

Flow of Current through Control

In normal operation the flow of current through the C-H type control is as follows:

When the temperature of the evaporator rises, the increased pressure

Complete Assembly

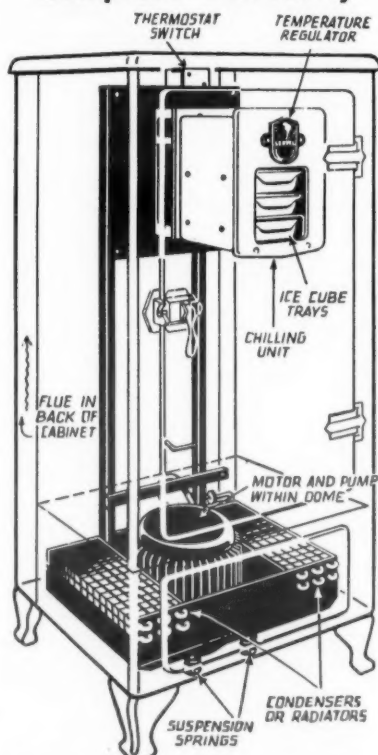


Fig. 327 shows a phantom view of a Servel Hermetic refrigerator giving the location of the principal parts.

in the thermostat bellows causes the circuit to be closed at the thermostat contacts (see Fig. 328). With the contacts closed current flows through the thermal link (Fig. 329), then through the thermal overload switch, thermostat contacts, and starting winding relay to the running winding of motor field.

The flow of current through the relay at time circuit is closed approximates five amperes for about one to two seconds. This flow of current causes the switch armature assembly to be lifted. This in turn causes contact to be made at contacts

(5), allowing current to flow through the starting winding of motor field.

Since the motor reaches full speed almost instantly and a natural reduction of amperage demand follows, the remaining flow of current through the relay coil is not great enough to hold the armature up. It therefore drops of its own weight, breaking the circuit at contact (5), thus stopping the flow of current through the starting winding of motor field.

The flow of current through the running winding of the motor continues until the circuit is again broken by the automatic operation of the thermostat or hand operation of the control.

The thermal link in the overload switch assembly provides proper motor protection against overload or low voltage. Therefore, it is not necessary to supply additional fuse protection unless a local ordinance demands it.

(To Be Continued in Next Issue)

Germany's Refrigerating Machine Exports Up

BERLIN, Germany—Machinery for chilling foodstuffs, both for commercial and domestic purposes, has been greatly perfected in Germany during recent years, reports the American Consulate here, as indicated by an increase in exports of German refrigerators from 2,303,000 Reichsmarks in the January-November period of 1936 to 6,260,000 Reichsmarks in the same period of 1937.

For the same period, imports dropped from 134,000 Reichsmarks to 23,000 Reichsmarks.

Special Heavy-Duty Model Offered In Gilfillan Line

(Concluded from Page 1, Column 5) contains only three moving parts. The large model, 838, is equipped with a special heavy-duty twin-cylinder compressor.

Features of the new models include an illuminated cold control panel with 16 speeds and vacation position; three large sliding shelves, adjustable and removable; vegetable crisper on the two larger models; polished chrome, semi-concealed door hinges; shallow ice cube trays with "jiffy" release; automatic interior light.

Cabinets for the Gilfillan refrigerators are designed and made by Seeger Refrigerator Co., and are insulated with three inches of rock wool. Exterior finish is of Dulux, interior of acid-resisting porcelain.

General Electric fractional horsepower motors are standard, though other makes are optional.

Gilfillan Specifications

Specifications of the 1938 Gilfillan refrigerators are:

Model No.	408	618	838
Height (inches) ...	53.75	60.125	63.75
Width (inches) ...	24.5	30.75	34.5
Depth (incl. hardware) (inches) ...	22	23.5	23.75
Net storage capac. (cu. ft.) ...	4	6.13	8.3
Total shelf area (sq. in.) ...	8.5	12.78	15.05
No. ice trays ...	2	3	4
No. ice cubes ...	42	56	77

King Carol Will Face Problems In Comfort

BUCHAREST, Roumania — In Europe's present strife-torn scene, at least one ruler is concerned with a non-controversial problem—that of personal comfort. King Carol has ordered air-conditioning equipment for Roumania's royal palace.

Perhaps it was the heat of European developments; perhaps it was only that King Carol wanted to be cool during the hot summers in Bucharest. At any rate, York's export office has been ordered to supply a number of portable room coolers for the palace.

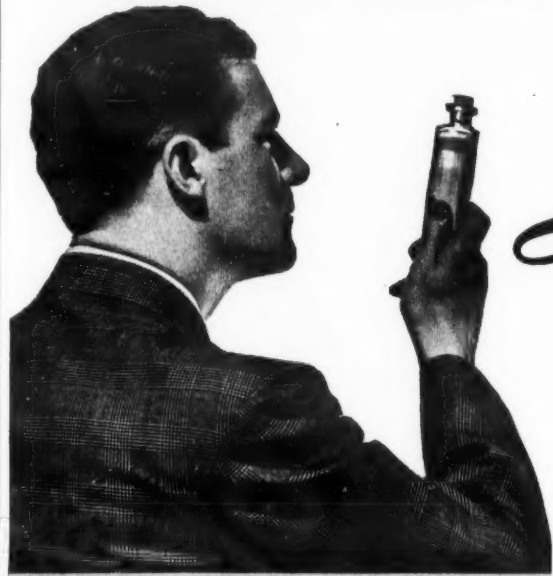
Electric Metal Etcher Used Like Pencil

SYCAMORE, Ill. — An electric etcher for permanently marking on metal surfaces has been added to the line of tools manufactured by the Ideal Commutator Dresser Co. here.

Used in the same manner as an ordinary lead pencil, the etcher writes, prints, or marks on tools, gauges, dies, and hard metal parts. Two points are provided with the unit; one, of copper, may be sharpened for fine marking, and the other, of special alloy, is designed for ordinary marking. Depth of the mark is determined by the speed at which the point is moved over the metal, and by adjusting the transformer.

Complete unit consists of a fiber handle with two points, a 4x7-inch work plate, and five feet of flexible wire with a carbon rod resistor and connector halves for attaching to a transformer.

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Engineering

Characteristics Of Centrifugal Compressors That Fit Them For Certain Installations

BY F. O. JORDAN

PERSONS engaged in the air-conditioning or refrigeration industry are conscious of the existence of the centrifugal refrigerating machine, but generally know practically nothing about it beyond the fact that it works at astoundingly high rotative speeds and very low pressures, and that it seems to do a tremendous amount of refrigeration in proportion to its physical dimensions.

Although the original conception of the centrifugal compressor was for refrigerating purposes in large air-conditioning installations, its peculiar characteristics make it useful in many other branches of the refrigeration field. In fact, its field of usefulness may be said to be anywhere that heat is to be removed in large quantities, regardless of the temperature levels involved.

The centrifugal compressor is essentially a low-pressure machine using refrigerants whose "low-side" pressures generally are sub-atmospheric at the required evaporator refrigerating temperatures, and whose condensing or "high-side"

pressures are not far above atmospheric.

Since water vapor fulfills these requirements, and is cheap, plentiful, non-toxic, and non-corrosive among other things, it frequently is used as a refrigerant in the centrifugal compressor where temperatures are not required below 40° F.

400 feet per second and up. Some attempts have been made (not by Carrier) to go as high as 1,500 feet per second.

"However, the upper figure is at the limit of mechanical safety and requires special material and design of the impeller. Besides it would be above the critical speed of the rotating system.

"One part of the total head is obtained in the impeller directly as a static head of compression due to centrifugal motion of the vapor. Another part is obtained in the diffuser as a result of conversion of the velocity head with which the vapor leaves the impeller into an additional static head.

"Ratio between the work of compression and the power input is called efficiency of the compressor.

"Due to some mechanical hydraulic and thermodynamic losses, the efficiency is always appreciably less than 100%. The sum of the losses

stages with a correspondingly smaller compression ratio in each stage.

"For any assumed condensing temperature, a decrease in suction temperature requires more stages, because drop in suction temperature means a higher head of compression and additional stages have to be provided if the same peripheral velocity has to be maintained.

FOR LOW TEMPERATURES

"From the fact that the centrifugal compressor is adapted to handling large volumes of gas, it follows that it is very suitable for low-temperature jobs, because the increase in specific volume of the refrigerant vapor with decrease of temperature demands large volumetric capacity.

"Due to the increase of specific volume at lower suction temperature, fewer pounds of refrigerant can be circulated for a given minimum intake volume. Therefore, the lowest tonnage limit which can be delivered by the same machine at lower temperature is smaller, because tonnage of refrigerating effect depends primarily on the pounds of refrigerant circulated. For instance, a centrifugal machine which is limited to 60 tons at 40° suction, will deliver only 30 tons at 0° suction.

"As to the highest limit, there is practically no limit in obtaining even extremely high tonnages with centrifugal machines. This is not true with reciprocating machines.

DRIVE

"Any medium or high-speed machine can be used to drive the centrifugal compressor, such as the steam turbine, the electric motor, etc.

"The high-speed steam turbine seems to be a most suitable drive for the centrifugal compressor because the two units may be coupled directly, thus eliminating any losses for power transmission and offering an ideal method of gradual capacity regulation by speed."

ADVANTAGES

Advantages claimed for the centrifugal type of compressor are as follows:

1. Absence of reciprocating parts, which eliminates power consumption required for overcoming inertia of such parts, as well as considerable wear and vibration.
 2. Absence of pistons and valves.
 3. Absence of all bearing surfaces except shaft bearings, thus reducing the number of wearing parts.
 4. Use of centrifugal force for compression.
 5. Makes possible the use of low-pressure refrigerants, thus reducing seal trouble and chance of leaks.
 6. Large volumetric capacity makes centrifugal compressor adaptable to the high specific volumes encountered at very low temperatures.
 7. Compact size for given refrigeration capacity.
 8. Freedom from oil in refrigerant as no bearing surfaces or oil sump are required within the refrigerant space. This characteristic eliminates many of the troubles due to oil "slugging," oil pocketing, reduction of heat transfer resulting from oil film on refrigerant side of heat transfer surfaces, etc., which are encountered in the refrigerant system where the reciprocating compressor is used.
 9. Maintenance of original efficiency, even after long use.
- "While discussing this item," says Mr. Berestneff, "let us consider first both types of machines as being brand-new machines, with best efficiencies and most suitable refrigerants for both types. It is likely that the efficiency of the centrifugal compressor will be slightly less than that of the piston compressor.
- "However, due to the fact that there are practically no wearing parts in centrifugal compressors, their efficiency is sustained, unlike the efficiency of piston compressors, which, as a rule, is considerably reduced within time due to wear of

pistons, cylinders, rings and valves, carbonization on pistons and valves, etc.

"Therefore, even if there is a slight inferiority of the efficiency of the centrifugal compressor at the start, if brand-new machines are compared, it is more than compensated by the sustained efficiency with respect to time.

"Another very important point is that, at partial load, the efficiency of the centrifugal compressor is reduced but slightly if the proper method of capacity regulation (by speed) is used, which makes these compressors very economical at partial loads.

"Besides, due to freedom from oil of the refrigerant in the centrifugal compressor, there is no oil being carried over to, and settled down on, the working surfaces of the condenser and evaporator, as is usually observed in the conventional type of the positive piston compression system. Therefore, the efficiency of the condenser and evaporator, as well as of the whole centrifugal machine, remains unchanged.

"All these considerations explain why the overall efficiency and, therefore, the operating cost taken over a certain period of time, might be better for the centrifugal machine than for piston compressors."

10. High speed, making possible direct connection to compact high speed, high efficiency motors or steam turbines.

11. When the multi-stage unit is used, refrigeration at different temperature levels is easily available, by connecting the suction line from the different evaporators to different stages of the compressor.

The chief disadvantage of the centrifugal compressor is that it is not adapted to sizes generating less than 50 to 60 tons of refrigerating effect.

(To Be Continued)

Peerless 'Spine Fin' Coil Used In Unit Cooler

CHICAGO—Peerless of America's new "High Dispersion" heat transfer surface, fabricated from hard-drawn copper tubing, is being used exclusively in the standard Peerless unit cooler for 1938, the company has announced.

From the outer surface of the copper tubing, a specially constructed machine cuts thousands of needle-like spines and leaves them standing on the tube in an erect position. It is said that this provides a true extended primary surface with thousands of heat-entering edges and no question of "bond" between primary and secondary surface, resulting in faster rate of heat transfer.

Greater compactness and maintenance of higher humidity conditions are claimed as advantages of the new Peerless heat transfer surface, which was shown for the first time at last November's Refrigeration Service Engineers convention here.

G-E Issues Periodical 'Instruments In Industry'

SCHENECTADY, N. Y.—A new house organ called "Instruments In Industry" will be issued periodically by the meter division of General Electric Co.

Primary purpose of the publication is announced as the bringing together of instrumentation and machinery for the betterment of industry.

Emergency testing, making plant surveys, testing new equipment, controlling production, and incorporation in the product itself are some of the instrument uses in the industrial field to be covered in "Instruments In Industry."

Printed in tabloid newspaper form, the house organ will be distributed free to industrial plants.

Get Acquainted With the Centrifugal Compressor

The centrifugal compressor has found a growing place in large-scale refrigeration and air-conditioning applications. In two articles—the first of which appears on this page—F. O. Jordan aims to provide the reader with a "Speaking Knowledge" of the centrifugal compressor and an idea of its function in the refrigeration field.

Carrene No. 2 or dichloromono-fluoromethane, is employed as the refrigerant for centrifugal machines at practically all refrigerating temperatures.

The following is a digest of the story of the centrifugal compressor using Carrene No. 2 as told by A. A. Berestneff of the Carrier Corp.

PRINCIPLE OF OPERATION

"The principle of action of the centrifugal refrigerating compressor is exactly the same as the centrifugal fan—the only difference being that the fan compresses a gas (usually air) only to a small extent, while the compression ratio of the centrifugal refrigerating compressor must be great in order to bring the vapor from the suction pressure to such a pressure level that the vapor can be condensed by water.

"There is a certain relation between the peripheral speed of the impeller (wheel) and the total head obtained, according to which the head is proportional to the square of the peripheral velocity.

"At present, the peripheral speed may be anywhere beginning with

of the centrifugal compressor is of the same order as in piston compressors. They are, however, of different values or nature.

"The refrigerating cycle used in connection with centrifugal compression is the same as for positive piston compression, the difference being in the way of compressing the refrigerant vapor, and expanding and evaporating the liquid.

"Accordingly, the complete centrifugal machine consists of (1) compressor; (2) condenser; (3) float return valve; and (4) evaporator.

NUMBER OF STAGES

"Theoretically, it would be possible to provide one stage in all cases by making the peripheral velocity high enough. The limit to the latter is set, however, by maximum allowable mechanical stresses due to centrifugal forces.

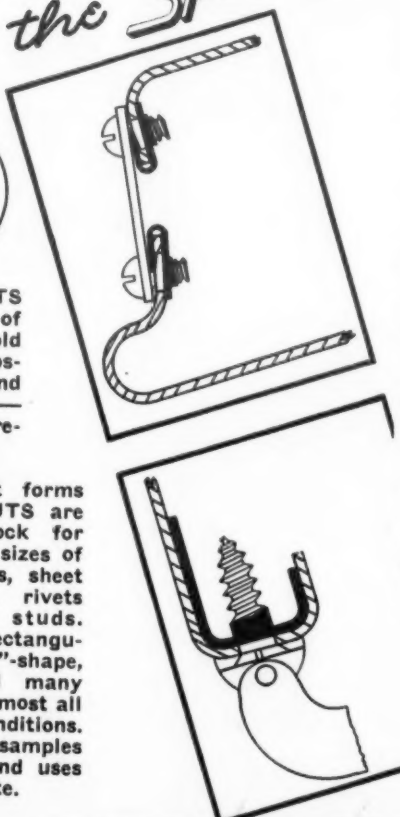
"In order not to exceed the safe figures for peripheral blade speed, two and more stages of compression (wheel elements) must be provided, the vapor being compressed successively, going in series through all

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A COMPLETE BUYING GUIDE

Don't depend on memory or obsolete lists to contact manufacturers of the products you buy. The 1938 Refrigeration and Air Conditioning Directory No. D-1 lists all manufacturers of complete systems, equipment, materials, parts, tools and supplies used in the industry. This new book will give you, quickly and accurately, the names of all active manufacturers of the items you want, will allow you to make contact direct with the manufacturers. It will save you many times its cost in eliminating needless work, wrongly addressed inquiries, lost time.

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Major Appliances

'Bring People Into Store,' Says Dealer Who Prefers Selling Ranges To Refrigerators

By James McCallum, Jr.

KNOXVILLE, Tenn.—Found—an appliance dealer who would rather sell one electric range than four electric refrigerators!

This man is Anthony C. Gesin, manager of Better Housekeeping Shop, a specialty appliance store located in the shadow of Sharpes Ridge, on the outskirts of Knoxville.

And here is the prime reason which Mr. Gesin gives for his favorable attitude toward ranges: Manufacturers allow a far larger dealer discount on ranges than on refrigerators, and consequently the dealer is able to make a much greater profit on each sale.

But despite his preference for range sales, Mr. Gesin's store has sold only 26 ranges so far this year, in comparison with 30 refrigerators. To chalk up this sales volume, the Better Housekeeping organization utilized a number of sales and promotion schemes, but Mr. Gesin firmly believes that the only sure-fire, fool-proof way of selling any kind of appliance is to go out of the store with the avowed intent of not coming back unless you bring some prospects with you.

"It's getting people into the store that's important," he explained. "Once you get them inside, where they can see the appliances themselves, it's usually a comparatively simple matter to sell them."

"Cold canvassing has produced big dividends," Mr. Gesin declared, "and I see to it that my salesmen do plenty of it. But that doesn't mean that we go in for high-pressure stuff."

"Instead our salesmen make a survey of all appliances owned in every home at which they call. This survey includes such items as make, age, degree of satisfactory service, etc. They definitely do not stress sales when they make their first contact, but rather try to get the people interested enough so that they will come down to the store to look the lines over."

In addition to Westinghouse refrigerators, and Westinghouse and Hotpoint ranges, Better Housekeeping Shop sells A.B.C. washers and Zenith radios. Radios and washers are frequently sent out on trial, and Mr. Gesin stated that about 98% of his store's washer sales are made through home demonstrations.

"Every salesman must be able to demonstrate a complete washing," said Mr. Gesin. "An inefficient, incomplete demonstration does more harm than good, for many customers to whom we sell washers have never had an electric unit before, and unless they know just how many clothes to put in and what proportions of soap and water to use, the result is apt to be unsatisfactory."

"For this reason, our salesmen personally supervise the first washing in which any customer uses the new machine."

In listing other selling aids, Mr. Gesin had this to say:

"Advertising is absolutely essential for any appliance store which wants to move its merchandise. It keeps the firm name before the public. We do this by means of frequent display and classified advertisements in local newspapers."

"To keep my men well trained on the uses of electric ranges, especially the Hotpoint line, I quite often arrange cooking schools for the benefit of the sales force. These schools are not open to the public."

"Dramatized demonstrations on all appliances are important, and we try to make them as forceful and effective as possible. By means of these demonstrations we drive home the ventage points of each of our products."

"To keep salesmen on their toes every minute of the time, there is nothing like good old-fashioned sales contests. We run these practically continually. One recent contest ran for a week, and the men were awarded various articles of clothing for exceeding a certain gross dollar volume of business during that week."

Two of Mr. Gesin's nine salesmen

are paid on a straight salary basis, while the rest are on commission.

"Instead, our salesmen make a It has been the experience of this company that the men on commission make more than the salaried salesmen. In general, Mr. Gesin would rather have married men working for him, as he regards them as more reliable and steady because of their family connections. He reported that the turnover in his sales force is very slight."

The real ace-in-the-hole of Mr. Gesin's sales force is not a salesman at all, but a woman who does nothing but dig up prospects.

"She has lived in this vicinity for 18 years," Mr. Gesin explained, "and is very popular among all of the folks in the neighborhood. She discovers the prospects and brings them into the store—and then our salesmen do the rest."

Analyzing the sources of his store's prospects, Mr. Gesin estimated that 50% are obtained through cold canvassing, 25% through leads furnished by satisfied customers, and the remainder from among those people who just "drop in" at the store.

Calahan Represents S-W Car Radio In Detroit

DETROIT—Burwell Calahan, manager of the radio division of United Motors Service, has been appointed special representative on automobile radios in this territory for the radio division of Stewart-Warner Corp., L. L. Kelsey, division manager, has announced.

Mr. Kelsey also announced that Stewart-Warner will maintain a complete auto radio experimental laboratory here under the direction of Arthur G. Thrun, recently appointed resident engineer.

Mr. Calahan had been with United Motors Service for the past three years.

March Vacuum Cleaner Sales 35% Over Feb.

CLEVELAND—March sales of household electric vacuum cleaners totaled 135,543, an increase of 35% over the February figure of 100,412, and a decrease of 32.37% from the March, 1937, aggregate of 200,414, according to announcement by C. G. Frantz, executive secretary of the Vacuum Cleaner Manufacturers' Association.

January-March total, 353,082, was off 25.86% from the all-time first-quarter high of 476,253, set last year, but compares with 359,464 for the first three months of 1936, next highest quarter recorded by the industry.

Household Washers Increase 24% In March Over Feb.

CHICAGO—Household washer shipments in March totaled 117,025, compared to 94,734 in February, an increase of 23.54%, but a decrease of 38.21% from the industry total of 189,393 in March, 1937, according to J. R. Bohnen, executive secretary of the American Washing Machine Manufacturers' Association.

March ironer shipments were 10,727, compared to 10,823 in February, and a decrease of 43.80% from the March, 1937, total of 19,086.

R. Cooper Jr. Equips Chicago Apartment Building

CHICAGO—Electric ranges and refrigerators have been installed by R. Cooper Jr., Inc., local General Electric appliance distributor, in the new 19-apartment building in Burton Place here.

Correlation Of Crafts Is Seen as Major Need In Kitchen Planning

MEDFORD, Ore.—Further analysis of the cost of selling such appliances as electric ranges was advocated by E. E. Walker, chairman of the home modernization committee of the Northwestern Electric Light & Power Association, at the meeting of that organization's business development section here recently.

Trial plans are no longer needed in the territory on electric ranges, Mr. Walker reported, but on water heaters such plans might help to live down "a certain amount of indifferent service."

A schedule of trade-in allowances for appliances, developed along automotive lines, would help meet a serious problem in the territory, he said.

Most important needs in kitchen planning at present, Mr. Walker stated, are better correlation of other crafts and services with the electric end of the job, and the providing of better space arrangements in kitchen layouts.

Whether a utility company should or should not merchandise appliances is still an undecided question, he declared. A "happy medium" between the extreme opinions for and against dealer cooperative plans that have been suggested still has to be arrived at, he said.

Whitehead Opens Monel Assembly Plant In N.Y.

NEW YORK CITY—Whitehead Metal Products Co. has opened a warehouse and assembly plant at 287 W. 10th St. The company makes and distributes Monel sinks, Monel tops for ranges and tables, Monel tanks for hot water heaters, and enameled steel cabinets with Monel tops for kitchens and laundries.

Now a subsidiary of International Nickel Co., the Whitehead organization had been located at 304 Hudson St. The new 10th St. building provides 150,000 sq. ft. of space on four floors. Private freight car sidings connect the property with transportation facilities.

In addition to warehouse and assembly space and provision for the company's offices, the new building contains kitchen and laundry planning and testing laboratories, which will be operated as part of the Whitehead Kitchen and Laundry Planning Service.

Detrola Radios Presented To Detroit Tigers

DETROIT—Each member of the Detroit Tigers American League baseball club was presented with a Detrola "Pee Wee" radio and carrying case, just before the Tigers' game with the Cleveland Indians at Briggs Stadium here April 24.

Electric Range Sales By Nema Show Feb. Drop Of 7.8% From 1937

NEW YORK CITY—Sales of electric ranges to distributors by 14 member companies of National Electrical Manufacturers Association totaled 22,628 units during February, a decline of about 7.8% compared with 24,537 units shipped by 12 companies reporting in the same month last year.

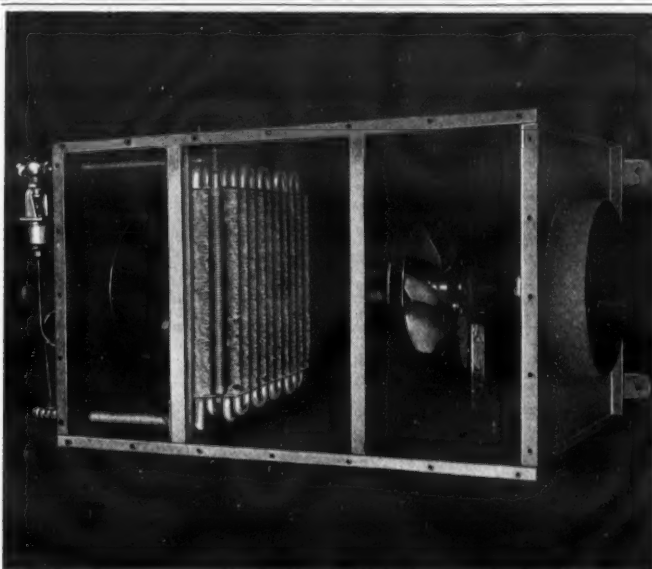
Value of electric ranges shipped this February was \$1,691,845, compared with \$1,699,019 during the same month of 1937. Average price of units shipped in the month this year is set at \$74.77, compared with \$69.24 for the same month last year.

Manufacturers' sales of ranges during the first two months of this year dropped 18.9% in number and 11.6% in value in comparison with the same period of 1937, the report shows. Sales for the January-February period this year total 41,128 units valued at \$3,127,514, against 50,703 units valued at \$3,538,989 in the same two months last year.

Average price of units sold, however, went up from \$69.80 for the 1937 period to \$76.04 for this year's first two months.

Stocks on hand by reporting companies totaled 3,972 units at the end of February this year, compared with 3,414 units at the month's end last year.

THE BUYER'S GUIDE



MORE SAVINGS FOR YOUR CUSTOMERS MORE PROFITS FOR YOURSELF

Here's a new Peerless Water Saver (evaporative condenser) that will cut water costs 96%, and is the most economically operated unit we know of. See the interior view at left and you have the reasons. High Dispersion heat transfer surface, the new Peerless development that speeds the rate of heat transfer, plus a new and simplified water distributor make this Water Saver your "best bet" for more sales.

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Established in 1912 As The Peerless Ice Machine Co.
Main Factory—General Offices
New York Factory 515 West 35th Street Pacific Coast Factory
43-20 34th Street Chicago 3000 S. Main Street
Long Island City Los Angeles
PEERLESS JOBBERS IN ALL PRINCIPAL CITIES
BUY PEERLESS FOR PERFORMANCE

Beyond COMPARISON

PELCO gives the buyer twice as much—that's why it's beyond comparison as a profit-maker for you. Any place selling bottled beverages is a prospect for PELCO with its enormous hourly capacity. PELCO makes its own floating ice automatically as needed and gives in addition a roomy refrigerator compartment below... requires no more installation than plugging it into a light socket. PELCO makes profits for the user—operates on a few cents a day—that's why it's profitable for you to sell.

PELCO is a clean, sweet, manufacturing job that lets you make a profit and KEEP it. CASH IN on the Super-powered PELCO NOW—write for all the facts. Address Desk A-58.

Refrigeration Division
PORTABLE ELEVATOR MFG. CO.
BLOOMINGTON, ILLINOIS
In Canada, UNIVERSAL COOLER CO. of CANADA, LTD. BRANTFORD, ONTARIO

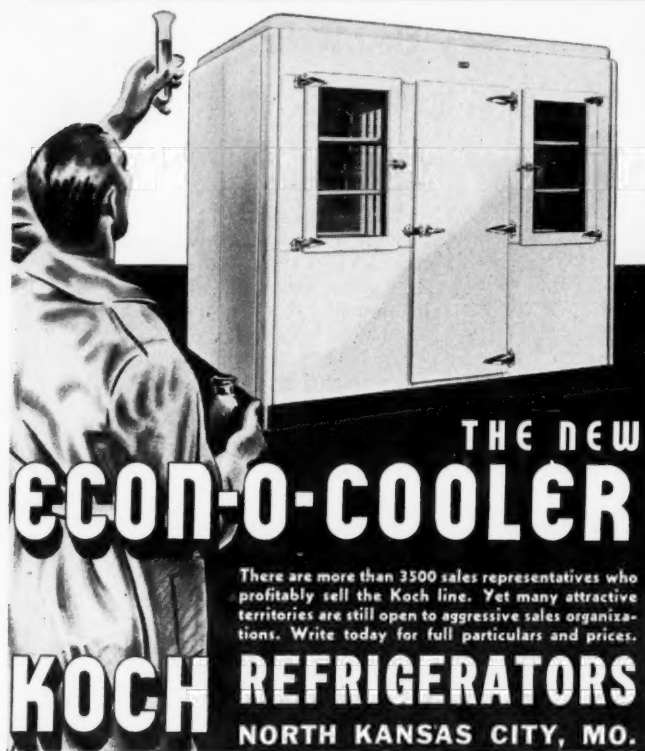


See Your RANCO JOBBER

REPLACE with Ranco Controls - - - and make more money on Household Refrigerator Thermostat service calls. Ranco leads the world in Exact Replacement Controls. Thirty-two models. Ten General Replacements.

Your Ranco Jobber is headquarters for precision controls of highest quality. He is at your service - - - with a complete stock of genuine Ranco Controls.

Ranco INC.,
Columbus, Ohio, USA



**THE NEW
ECON-O-COOLER**

There are more than 3500 sales representatives who profitably sell the Koch line. Yet many attractive territories are still open to aggressive sales organizations. Write today for full particulars and prices.

KOCH REFRIGERATORS
NORTH KANSAS CITY, MO.

*Tested
Approved*

A spacious new walk-in cooler that operates at a lower cost than was ever before thought possible. Every day a Koch Econ-O-Cooler will cut down overhead and expenses. It has greater capacity, longer life, and more efficient refrigeration.

The Econ-O-Cooler is only one of a number of standard Koch products. There are 108 standard models in the vast Koch line, including display cases, coolers, vegetable cases, and refrigerators for meats, bottled goods, flowers, bakery items, dairy products, etc. There is a Koch product to fill every need.



Multiple Temperature Snap-Action Valve Without Bellows Strain!

Opens and closes, regardless of range or differential setting, with a positive snapping action at any previously determined setting.

Permits the use of a variety of evaporators at widely differing temperatures to be handled by a single Compressor up to its maximum load possibilities.

Adjustable as to range from approximately 20" of vacuum to 60 lbs. pressure

with an adjustable differential of from 7 lbs. to 29 lbs. at any pressure range.

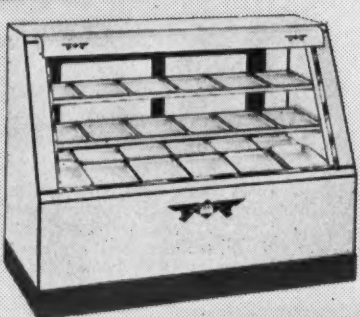
For any refrigerant except ammonia.

Thousands of these valves are furnishing excellent service throughout the refrigeration world.

Complete information on American Injector Company products, including Expansion Valves, Constant Pressure Valves, Throttling Valves, Water Regulating Valves, Oil Separators, High Side Floats, and many other splendid items available from your jobber or

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DOUBLE PROFITS Selling Sherer's 1938 CASE AND COOLER HEADLINERS



The Sherer Franchise Offers:
★ COMPLETE LINE OF CASES, COOLERS AND BOXES.

★ NEW EQUIPMENT constantly under development, opening new fields for compressor sales.

★ LAYOUT DEPARTMENT—layouts for food store modernization programs without obligation.

★ ADVERTISING—Sherer Equipment advertised by mail and in leading trade publications.

Equipment and Compressor Sales go together. Sell both on one contract.

Write for catalog and franchise details, mentioning territory desired.

SHERER-GILLET CO. MARSHALL
Manufacturers of Refrigerated Display and Storage Equipment

Never "MAY" BUT "DO"

MAY as a month is a delightful time but as a word in engineering "MAY" is much inferior to "DO".

For instance: Of Commonwealth fittings we never say they "MAY" fit; they "DO" fit. Every thread is an exact duplicate of its brother; each seat is as perfect as advanced engineering skill can make it, each fitting is guaranteed to be seepage-proof "Built Right To Stay Tight".

For years & years, 'way back to the birth of the industry, those who value originality and excellence in manufacturing, have learned to rely on Commonwealth as a concern where "MAY" always meant "DO".

The quantity production of flared fittings, Standard, Semi-Standard and Special Shapes is a specialty of this organization.

COMMONWEALTH BRASS CORPORATION

Commonwealth at Grand Trunk R. R.
DETROIT, MICH.

Long Island Dealers Endorse Cleanup Moves On Radio Selling & 'Apartment House Racket'

JAMAICA, L. I., N. Y.—Adoption of a nine-point program designed to correct trade abuses in the radio field, launching of a drive to stop the "apartment house owner racket" and the activities of "jerrybuilt" promoters, and reports on shopping activities to gauge the progress of the movement for standardized prices were carried out at a recent meeting of the Electrical Appliance Merchants' Association of Queens, Inc., in the Franklin hotel here.

The nine-point "clean-up" program on radio merchandising, adopted by the Queens association in cooperation with the Electrical Appliance Dealers Association of Brooklyn, Inc., is designed to correct "evils" in the radio field similar to those in the refrigerator selling field against which action recently was taken.

Platform to be presented to radio manufacturers and distributors for their consideration follows:

1. Contract with a fixed net selling price being controlled by the distributor.

2. All violations of contracts to be enforced by the distributor at once.

3. Contracts or franchises for manufacturer's new line to be submitted to a committee of dealers before the new line is shown.

4. Readjustment of manufacturers' business policies so as to limit the number of radio dealers handling one brand of merchandise in a given territory, thereby encouraging only responsible dealers to remain in the radio business.

5. Price guarantee to protect the dealers' time payment paper. This guarantee should be given with the franchise.

6. Selection of a group of dealers to sit in with the distributor in the event of price violations by a dealer, to decide what punishment the violator should receive and to see that the committee's decision is enforced.

7. Specific statements in distributor-dealer contracts that all advertising prices, tags, and cards will show only the full list price, and are not to show any trade or allowance.

8. Instruction of banks and finance companies not to handle paper on radios not backed by a price guarantee.

9. No sets not under the original contract to be brought out later in the season.

Presentation of the radio "clean-up" program was made by Clarence Schimpf of Coker-Evans Radio Service, Flushing, representing the Queens association, and Percy Peters of Peters Radio Shop, Brooklyn, representing the Brooklyn group.

Following a short talk by Russell H. Atkinson, president of the National Radio and Appliance Retailers Association, members of the Queens organization voted unanimously to join the national dealer association.

In presenting a report announcing the opening of a drive to correct the "apartment house owner racket" and the activities of "jerrybuilt" promoters, Joseph A. Dorsey proposed, among other things, not to consider as apartment house operators customers who purchase less than four refrigerators at one time.

Under the guise of the legitimate requirements of apartment house owners, these operators carry on a number of abuses comparable to

those practiced by so-called "discount selling" houses, Mr. Dorsey said in his report.

That efforts of the association to stamp out cut-price selling by "discount houses" is meeting with at least some measure of success was reported by President Jim Hardee of the association, who said that "shoppers" had been unable to buy refrigerators at less-than-list prices from most of these stores.

This indicates, Mr. Hardee told the more than 100 dealers present at the meeting, that New York City distributors were in earnest when they promised, at an open meeting of the association some weeks ago, to co-operate with dealers in eliminating cut-price selling.

Samuel Stein, chairman of the association's refrigerator committee, reported that shoppers had brought back several instances in which substantially lower prices might be had from dealer-members of the association, "if the shopper persisted."

Most of the price-cuts offered, however, were apparently conceded by dealers in a last-ditch effort to obtain the sale, Mr. Stein said, and for that reason could not be construed as deliberately destructive tactics. Facilities to enable dealers to make a quick check of reported cut-price offers by competitors are being set up, he continued.

This will enable such claims to be disproved, or, if true, will permit quicker action in eliminating the objectionable practices, Mr. Stein said.

Paul Jappe, vice president of the Queens association and an officer of the recently formed Metropolitan Dealer Association League, reported that consideration is now being given to a proposal to enact legislation whereby all appliance and radio dealers would have to be licensed. Movement to correlate the trade practice activities of the various metropolitan New York groups is progressing, he said.

In a talk, Mr. E. F. Jeffe explained the policies and purposes of Consolidated Edison's merchandising program, and invited members of the association to come to the utility for explanation and possible settlement of the company's activities with which they were not in sympathy.

"If you think that something we are doing is wrong, by all means come in and say so," Mr. Jeffe told the dealers. "If you have some suggestions whereby you think we can improve our program, let us hear from you."

"We are not going to 'yes' you—if we don't think your criticisms or suggestions are sound, we're going to fight back at them. If they're good, we want to use them."

"To those who don't think our promotion of gas refrigerators is a good thing," he continued, "I should like to point out that it was competition of this kind that prompted the electric refrigerator people to appropriate \$150,000 for an advertising campaign, from which you dealers are benefitting."

York Will Release Film Showing Manufacturing

YORK, Pa.—"Cold Magic," a sound motion picture describing and illustrating the processes and craftsmanship used in the manufacture of mechanical cooling equipment for refrigeration and air conditioning, will soon be released by York Ice Machinery Corp.

Various scenes in the film show activities in the York factory, including testing in experimental laboratories, casting in the foundries, machining Freon and ammonia compressor parts, assembly lines for small air-conditioning units, erecting huge compressors for large installations, and inspecting completed units.

Distributors To Handle Kitchen Units as 'Fill-In'

DETROIT—Morley Bros., distributor throughout Michigan for Stewart-Warner refrigerators and other appliances, has taken on the "Uni-Bilt" line of steel kitchen equipment manufactured by St. Charles Mfg. Co., St. Charles, Ill.

This line of enameled steel cabinets, sink units, etc. is composed of various units, each available in a number of widths so that they can be fitted into almost any kitchen arrangement.

Because of this extreme flexibility and because FHA aid may be obtained in modernizing kitchens with this type of equipment, Carl Crandell, appliance sales manager of Morley Bros., believes that the "Uni-Bilt" equipment will perform a valuable function as a "fill-in" line during the current slump in appliance sales.

Availability of FHA financing on the Duo-Therm line of oil-burning water heaters, manufactured by Motor Wheel Corp. and distributed in Michigan by Morley Bros., also will help considerably in the sale of this item, Mr. Crandell believes.

8 New Distributors Named By Detrola

DETROIT—Appointment of eight new distributors for Detrola products, four of them to handle the radio and refrigeration line, and four to handle radios only, has been announced by James J. Davin, Detrola sales manager.

Radio-refrigerator distributors are: George H. Eberhard Co., San Francisco; Watson & Wilson, Inc., Los Angeles; H. E. Sorenson Co., Des Moines, Iowa; and Kurtzco Distributors, Buffalo, N. Y.

Radio distributors only are: Kemp Equipment Co., Rochester, N. Y.; Ignition Service & Supply Co., Inc., Albany, N. Y.; Nelson & Co., Baltimore; and Everybody's Supply Corp., Philadelphia.

Des Moines Distributor Named By Trane

DES MOINES, Iowa—Air Conditioning Corp., with headquarters here and branches in St. Louis and Chicago, has been appointed to handle Trane air-conditioning equipment.

The firm is an outgrowth of the air-conditioning and refrigeration division of Des Moines Steel Co., and has had several years' experience in both engineering and contracting work. Des Moines' Equitable building, said to be one of the largest air-conditioned office buildings in the world, is one of the company's installations. John K. Dunn is chief engineer of the company.

C. I. T. Offices Opened In Williamsport, Pa.

WILLIAMSPORT, Pa.—C. I. T. Corp., national sales finance company, opened an office here March 14 in charge of Walter Blake, who was transferred to the new branch from C. I. T.'s Philadelphia office.

A. H. Ackerson will continue to contact dealers in the Wilkes-Barre area for the new office. The Williamsport location will serve dealers in Lycoming, Sullivan, Union, Montour, and Northumberland counties.

Grosscup Joins Staff Of Dravo Corp.

PITTSBURGH — Paul Benjamin Grosscup, Jr., a graduate of Yale who recently completed a 10-week training course conducted by Carrier Corp., has been appointed to the staff of Dravo Corp., Carrier distributor here.

ABSOLUTELY Dependable
EVERY CYLINDER INDIVIDUALLY ANALYZED

ANSUL
SULPHUR DIOXIDE
METHYL CHLORIDE

ANSUL CHEMICAL COMPANY
MARINETTE, WISCONSIN

SERVEL
COMMERCIAL REFRIGERATION and AIR CONDITIONING

Are your requirements large or small, standard or special? Servel can help you! Write today to Servel, Inc., Electric Refrigeration Division, Evansville, Ind.

Stoker News

Milwaukee Stoker Man Explains Value Of Junior-Senior Sales Training Plan

MADISON, Wis.—Emphasis was placed on adoption of a system of junior and senior salesmen by A. B. Meeg, branch manager of Iron Fireman of Milwaukee, speaking on "Hiring and Training Stoker Salesmen" at the Third Conference on Solid Fuel and Domestic Stokers, held April 20 to 22 at the University of Wisconsin.

The system of sales training used successfully by Mr. Meeg begins with overalls. "After a man is hired, we ask him to put on old clothes, and assign him to an installation crew for a period of one or more weeks. The work is hard, but if a man is really interested in learning we find that he digs in and works to the best of his ability. We do not require this man to do much actual manual labor, but if he loafs on the job without showing any particular interest, we are immediately suspicious of his desire to learn our business."

GETS SERVICE EXPERIENCE

"After a given period with the installation crew, he is assigned to a service man for an additional week of practical experience. During this period the new salesman is studying our manual, sales literature, and equipment."

"He is then assigned to an experienced salesman, who gives him preliminary training in making surveys, good contacts, and methods of obtaining prospects. An arrangement is made whereby a small part of the new salesman's commission is given to the older salesman as an incentive to make the new man produce. An equal amount is given to the older salesman by the company."

"The reason for such an arrangement is that the new man will take advantage of the aids available if he feels that he is helping pay for them. In addition to the commission, a bonus is given to the older salesman as soon as he has helped his protégé sell five machines."

"We endeavor to have a new salesman sell a few machines in a relatively short period of time to develop his interest, enthusiasm, and confidence in his new work. The first order is usually the hardest, but it is a definite stepping stone in the future of the new man. We are

definitely in favor of the individual method of training as compared with the group method. The men develop faster and the training can be made more thorough."

"In recent years a number of retail stoker companies have attempted to hire and train a large group of men in a short period of time, only to find that very few men 'survived' more than a few months. Such an experience is costly to both the company and the men, who, perhaps through no real fault of their own, failed to make good."

"Our experience indicates that the so-called 'natural-born salesman' is neither a consistent nor large stoker sales producer. This man is usually endowed with a pleasing personality and the ability to make a good first impression. Some of these individuals, however, are seriously handicapped in stoker sales work because they try short-cuts. They often fail to make a complete survey, and as a result are unable to demonstrate to the prospect just what a stoker can and will do for him on his particular installation."

SALES QUALIFICATIONS

"A good stoker salesman must have at least the following six qualities:

- "1. Willingness to consistently do a full day's work.
- "2. Ability to get along with people.
- "3. Ability to manage his personal financial affairs.
- "4. Inherent honesty, and a real liking for his work.
- "5. Ability to make friends of his customers, so that they will continue to supply him with prospects.
- "6. Ability to 'plan his work and work his plan.'

"The successful stoker salesman builds up a business clientele in the same manner as a successful doctor, lawyer, or business man."

"We find it advisable to hire salesmen who have not had any previous stoker experience. The inexperienced man is more easily trained to use our methods. The stoker salesman who shifts from one stoker company to the other usually believes that he knows everything about the stoker business, but is often unable to do the quantity or quality of work required to provide a satisfactory income for his needs."

"It is well to look with suspicion on a man changing from one stoker company to another, and to determine whether or not he had valid reasons for leaving his previous connection."

SOURCES OF SALESMEN

"Names of prospective salesmen may be obtained from the following sources:

"1. Owners: As a rule the stoker owner is enthusiastic about his stoker and often knows of someone interested in bettering himself. The owner will create enthusiasm in the prospective salesman."

"2. Business associates: People in other lines of business, such as bankers, often know of individuals not making satisfactory progress or income."

"3. Colleges and universities: A number of new engineering graduates were hired by our company during 1936 and 1937 and results over the country have been satisfactory. Some of these men are in the sales department and others are in the service department. Fifty per cent of the men are still with us, and some have excellent records."

"4. Ministers and priests: Personal contact with their parishioners enables them to make valuable recommendations."

"5. Chain store managers and filling station attendants: These men are accustomed to long, hard hours, and to assuming responsibility. Men with such companies are carefully selected and receive good training and experience in meeting the public."

"6. Organizations: Such as the Elks, Kiwanis, Masons, Knights of Columbus, Rotary, and American Legion. Secretaries of such organiza-

tions are usually acquainted with the personal condition of the members and know of good men who are available."

"7. Newspaper advertisements. "8. Contact by applicants: A certain number of men will call in person and ask for a job."

"During the preliminary interview, it is easy to determine whether or not the applicant is a 'drawing account artist.' If he is more interested in the amount of drawing account available than in his future possibilities, or starts to build up his personal financial requirements, we are quick to inform him that large drawing accounts are paid only after the salesman has demonstrated his ability to earn the larger amount."

"Telling such men that only small drawing accounts are available for the training period is usually enough to discourage a second visit. We do not hire men on the first contact."

"If the prospective salesman makes a favorable impression, a thorough investigation of the individual is made by checking the personal references on his application. Contact is made with his previous employers, most of whom are willing to advance information on the applicant."

"A confidential credit report is obtained from one of several available sources. Such reports contain valuable data regarding the habits of the applicant."

WORK WITH USERS

"While waiting for the various reports on the applicant, we give him the names of a number of our users, with the request that he visit these users and make written notes regarding the operation of the stoker. This will tell us one of two things:

"First, if the applicant visits a number of users, we know that he is willing to go out and make calls and is really interested. These users will further sell him on our equipment, what it will do, and his future possibilities with the organization."

"Second, if the applicant returns without the reported check-ups, we know that he will not be likely or willing to go out and do the work necessary to sell successfully."

"If all factors are favorable, we ask ourselves the following question: 'Have you sufficient confidence in this man to pay him a drawing account or salary for a period of four months, even though he does not bring in an order during that time?'"

"Such a measuring-stock forces us to make a careful investigation before hiring the salesman. We have found that many of our best men have not done well during the first four to six months in our employ."

Levy Appointed Director Of Stoker Sales For U.S. Machine Corp.

LEBANON, Ind.—Charles B. Levy has been appointed director of stoker sales for U. S. Machine Corp. (formerly Winkler Mfg. Corp.), according to an announcement by Carl J. Winkler, president.

Mr. Levy formerly was associated with the Switzer-Cummins Co., Indianapolis, as sales manager for Stokol stokers.

Officers and executives of the U. S. Machine Corp. are: Carl J. Winkler, president and treasurer; Ralph D. Crowl, vice president; Herman E. Winkler, secretary and chief engineer; Charles B. Levy, director of sales; Garth Scott, service and field engineer; Maurice Winkler, factory manager; Walter Winkler, production manager; and George Pyritz, chief tool designer.

C. T. Burg Elected To Board Of Iron Fireman Mfg. Co.

CLEVELAND—C. T. Burg, sales manager of the Iron Fireman Mfg. Co. during the past 15 years, was elected to the board of directors of the company at a recent meeting.

T. H. Banfield, president, announced that 1937 sales amounted to \$6,538,922, the largest volume in the company's history.

Nugent Elected President Of Round Oak Furnace Co.

DOWAGIAC, Mich.—Richard D. Nugent, 28, has recently been elected president of Round Oak Furnace Co.

Stoker Sales For Jan. & Feb. 22½% Below 1937 Mark; Totals Compare Well With 1936 Figures

WASHINGTON, D. C.—Stoker sales for the first two months of 1938 reported to the Bureau of the Census by 112 manufacturers totaled 4,918 units, 22½% under the 6,357 total reported by 108 manufacturers for the first two months of last year.

Sales reported for February, 1938, totaling 2,495 units, were only slightly under the February total of 2,808 stokers sold in 1936. January sales of 2,423 units approximated the 2,550 units sold by the industry during the month in 1936.

Sales for 1937 totaled 3,080 units in January and 3,277 units in February. The yearly total for 1937 brought an all-time high in the stoker industry of 101,808 units, compared

with an industry total of 18,233 in 1933.

Bureau of Census figures show that sales of 315,503 stokers were reported during the years 1923-1937, inclusive, of which the 1937 total constitutes approximately 30%.

Of the 4,918 units sold during the January-February period of this year, 4,056 came in Class 1—residential stokers handling less than 61 lbs. of coal per hour. Class 1 and class 2, taking in units up to 100 lbs. of coal per hour, were responsible for 4,428 of the industry total for the period.

Stoker sales reported to the Bureau of the Census represent approximately 85% of the total value of stoker sales made by the entire industry.

NEW

Percival

STREAMLINER!



DISTRIBUTORS WANTED!

Write for details of Profit-making franchise. Complete PERCIVAL line meets every requirement of the modern food store.

Modern styling . . . Beautiful design . . . Outstanding construction . . . Economical operation! TOMORROW'S case, presented TODAY! Get the jump on other distributors by selling this modern marvel of electrical refrigeration. Its NEW style and NEW features give you exclusive selling advantages! NEW PERCIVAL FINANCE PLAN HELPS YOU SELL.

C. L. PERCIVAL COMPANY
DES MOINES IOWA
52 YEARS OF SERVICE 1886-1938

TYLER

WELDED STEEL

Refrigerators






This year, more than ever, the Tyler line is the popular line in the commercial refrigerator field. Now complete with Top Display, Double Duty, Delicatessen, Reach-In cases and Walk-In coolers. Sizes and types to take care of every prospect. Welded steel construction and other exclusive features make TYLER

THE FAST SELLING LINE

Tyler's quantity production methods have made possible a new standard of values that gives you unbeatable sales ammunition. Write now for new literature and dealer details.

TYLER FIXTURE CORP. Dept. E, NILES, MICH.
NEW YORK OFFICE: 601 W. 26TH ST. CHICAGO OFFICE: 1833 W. OGDEN AVE.

PROFIT-MAKER DELUXE!

There's no competition in the high-quality class for this 1938 ALLISON AIR CONDITIONER! Read the features below and be amazed at the \$260 list price. Exceptionally attractive discounts. Write or wire for details today!

Allison Air-Conditioner Features

- Self-Contained Air-Conditioning Unit
- ½ Ton Capacity
- Water Cooled
- Finest Construction
- Johns-Manville Insulation
- Vibration Free
- Directional Flow Grille
- Genuine Walnut Cabinet
- Cools, Filters, De-Humidifies

W. D. ALLISON COMPANY, Indianapolis, Ind.



M&E

EST. 1866

Refrigeration

Automatic Sealtight Seals provide positive seal at all times, regardless of refrigerant. Higher the pressure . . . tighter the seal. Seals on seal nut, not shaft . . . no shaft wear, less spring tension, less power consumption, insures proper lubrication and reduces wear. ¼ H.P. to 25 H.P. models. Write for new catalog.

MERCHANT & EVANS CO.
Phila., Pa., U. S. A. Plant at Lancaster, Pa.

THIS NEW IMPERIAL SERVICE VALVE KIT SIMPLIFIES THE CHARGING AND PURGING JOB ON ALL TYPES OF HERMETIC UNITS



• Here is a service valve kit that eliminates the need for having a number of different service valves. The valve, 8 adapters, 5 keys, and 4 gaskets will handle almost any job that comes up. Ask for complete information about the No. 182-F Service Valve Kit. • Dealers price \$8.00 each net. •

IMPERIAL BRASS MFG. CO.
565 S. Racine Ave., Chicago, Ill.

IMPERIAL

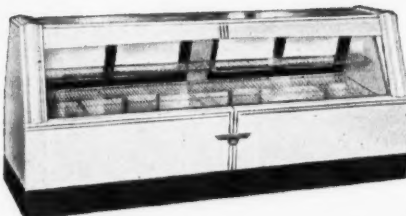
Air Conditioning and Refrigeration Products

VALVES • FITTINGS • TOOLS • CHARGING LINES • FLOATS • STRAINERS • DEHYDRATORS

ORDER FROM YOUR JOBBER

THE BUYER'S GUIDE

THE NEW 1938 C-B KOLD-O-MATIC



Display Cases & Refrigerators
Fulfill Constantly Increasing
Demands For

- MORE DISPLAY
- MORE EYE APPEAL
- PROPER TEMPERATURE
- PROPER HUMIDITY
- PROVEN CONSTRUCTION
- PROVEN QUALITY

EXCLUSIVE TERRITORIES AVAILABLE
FOR QUALIFIED DISTRIBUTORS

THE CINCINNATI BUTCHERS SUPPLY CORPORATION
CINCINNATI, OHIO

THE LAST WORD IN Refrigeration

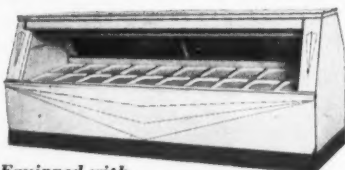
40 Years' results combined in one case.
SCIENTIFICALLY TESTED.
MECHANICALLY PERFECTED.
NATIONALLY ACCEPTED.

BROMANN BROS., Inc.

FULTON & PEORIA STS. CHICAGO, ILLINOIS



PERFECT FOOD PRESERVATION

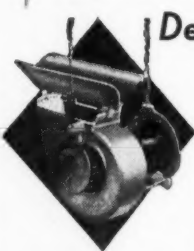


Equipped with
Famous Fogel Lifetime Vision

Fogel equipment is designed to maintain BALANCED REFRIGERATION with complete circulation and correct humidity. Keeps foods not MERELY COLD, but FRESH.

Inquire today about our full line of refrigerated food storage and display equipment. Interesting distributor proposition to qualified firms.

FOGEL REFRIGERATOR COMPANY SINCE
16th & Vine Sts., Phila., Pa. 1899



**ACTION-AIR
SYSTEM**

Detect This Trouble and You Discover
a **SURE SALE** and **NEW PROFITS!**

Trouble in the cooler! Dead air spots and freezing zones are impairing foods . . . Humidity, too high or too low, is causing still more grief . . . That's the time for the Service Expert to recommend—demonstrate—install Action-Air System.

Action-Air is a patented system of correct air circulation for coolers. A demonstration tells it. Pays its own way through savings. Makes good profits for you and leads to repeat business. Proved in many uses since 1932. Write for our attractive proposition today.

THE BROWN CORP., 616 Bellevue Ave., Syracuse, N. Y.



Strip those doors with Pi-R Seal and stop leakage of cool air, warm air, noise and dust.
Pi-R is easy to attach. If and when the rubber deteriorates, it is renewable without tools, in a jiffy! Nothing seals like rubber!

Pi-R
REG. U.S. PAT. OFF.
SEAL

Thousands of feet already in use. Distributors in the principal cities. Some territory still open.
G. W. GAIL, Inc.
Industrial Bldg., Baltimore, Md.

REFRIGERATION and AIR CONDITIONING PARTS*



**PROMPT
SERVICE**

Write for
OUR LATEST CATALOG*
ON YOUR LETTERHEAD

BRANCHES:
NEW YORK • CLEVELAND • ST. LOUIS

The HARRY ALTER CO., 1728 SO. MICHIGAN AVE., CHICAGO, ILL.

25,929 Commercial Units Sold To Distributors During March By 14 Nema Manufacturers

The following report of commercial refrigerating and air-conditioning equipment sales for March, 1938, was made to the Commercial Refrigeration Section of the National Electrical

Manufacturers Association (Nema) by the following 14 companies:
Brunner Mfg. Co., Carrier Corp., Crosley Radio Corp., Frigidaire Corp., General Electric Co., Gibson Electric Refrigerator Co., Kelvinator Div.

Nash-Kelvinator Corp., Merchant & Evans Co., Norge Div. Borg-Warner Corp., Servel, Inc., Uniflow Mfg. Co., Universal Cooler Corp., Westinghouse Electric & Mfg. Co., and York Ice Machinery Corp.

SALES FOR MARCH, 1938

	Domestic Quantity	Domestic Value	Canadian Quantity	Canadian Value	Other Foreign Quantity	Other Foreign Value	Total World Quantity	Total World Value
1. Bottle Water Coolers—Complete	206	\$ 13,428	3	\$ 176	67	\$ 4,199	276	\$ 17,803
2. Pressure Water Coolers—Complete	1,339	135,926	10	879	139	14,236	1,488	151,041
3. Water Coolers—Low Side Only	70	11,598			1	91	71	11,689
4. Ice Cream Cabinets—Complete	4,035	585,811	217	26,308	296	35,600	4,548	647,719
5. Ice Cream Holding Cabinets Only (Remote)	399	52,759	5	745	10	1,104	414	54,608
6. Bottled Beverage Coolers—Complete	6,502	587,910	249	22,039	116	10,453	6,867	620,402
7. Beverage Coolers (No High Sides)	141	10,969					141	10,969
8. Milk Coolers—Complete	11	1,740			4	709	15	2,449
9. Milk Cooling Cabinets (No High Sides)								
10. Self-Contained Air Conditioners Air Cooled—All Sizes	1,639	331,109			172	35,801	1,811	366,910
11. Self-Contained Air Conditioners Water Cooled—Under 2 Hp.	86	14,235			20	3,848	106	18,083
12. Self-Contained Air Conditioners Water Cooled—2 Hp. and Up	226	120,762			2	1,200	228	121,962
13. Air Conditioners—Central Stations 5-Ton Capacity and Over	73	43,899	1	1,587	3	2,155	77	47,641
14. Air Conditioners—Floor Type (No High Sides)	124	55,278	1	620	30	11,859	155	67,757
15. Air Conditioners—Ceiling (Cooling Only—No High Sides)	208	40,449			39	4,671	247	45,120
16. Air Conditioners—Ceiling Type (Equipped for Heating—No High Sides)	26	14,560			4	2,240	30	16,800
17. Air Conditioners—Residential Type (No High Sides, Boilers, or Furnaces)	17	5,019			17	3,912	34	8,931
18. Condensing Units Less Than 1/2 Hp.	2,578	152,930	15	815	352	21,553	2,945	175,298
19. Condensing Units—1/2 Hp.	2,743	205,853	54	4,883	291	25,351	3,088	236,087
20. Condensing Units—3/4 Hp.	1,362	126,779	63	7,673	207	24,262	1,632	158,714
21. Condensing Units—1 Hp.	727	100,458	41	6,002	147	22,086	915	128,546
22. Condensing Units—1 1/2 Hp.	550	89,238	33	5,590	94	17,235	677	112,063
23. Condensing Units—2 Hp.	395	78,405	13	2,814	99	22,934	507	104,133
24. Condensing Units—3 Hp.	199	43,599	10	2,831	36	9,314	245	55,744
25. Condensing Units—5 Hp.	109	33,374	7	1,779	66	16,556	182	51,709
26. Condensing Units—7 1/2 Hp.	82	38,912			17	8,067	99	46,979
27. Condensing Units—10 Hp.	59	37,122	1	555	16	9,480	76	47,157
28. Condensing Units—15 Hp.	42	32,332	1	812	7	5,740	50	38,884
29. Condensing Units—20 Hp.	53	46,166			1*	1,732*	54	47,898
30. Condensing Units—25 Hp.	41	41,010	1	1,265	6	7,085	48	49,360
31. Condensing Units—30 Hp.	23	28,385	1	770	4	4,692	28	33,847
32. Condensing Units—40 Hp.	21	32,283	1	1,190			22	33,473
33. Condensing Units—50 Hp.	15	27,780	1	1,250	1	1,570	17	30,600
34. Condensing Units—60 Hp.	5	12,069					5	12,069
35. Total—Lines 18 to 34 Inclusive	9,004	1,126,695	242	38,229	1,344	197,657	10,590	1,362,581
36. Total—Lines 1, 2, 4, 6, 8, 10, 11, 12, 35	23,048		721		2,160		25,929	
37. Commercial Evaporators (Not Reported Above)	2,251	79,185	365	10,460	875	28,114	3,491	117,759
38. Air-Conditioning Evaporators (Not Reported Above)	174	51,818	6	315	2	220	182	52,353
39. Total Commercial & Air Conditioning		\$3,283,150		\$101,358		\$358,069		\$3,742,577

*Includes sales and credits.

1937 Appliance Sales In Southern California

(Does Not Include Los Angeles and San Diego)

SOUTHERN CALIFORNIA EDISON CO., LTD.
SUMMARY OF DEALERS' CONFIDENTIAL REPORTS OF ELECTRICAL
APPLIANCE SALES FROM JAN. 1, 1937, TO DEC. 31, 1937, INCLUSIVE

Sales Area	Ranges	Water Heaters	Refrigerators	Washers	Ironers	Vacuum Cleaners	Radios	Irons
Santa Monica	1,114	341	6,004	1,835	349	1,228	5,687	1,364
Inglewood	715	196	3,329	2,427	378	626	1,815	850
Redondo	349	105	1,634	1,316	274	473	2,484	828
Ventura	57	42	431	606	74	149	1,508	345
Oxnard	69	70	144	246	26	75	397	162
Santa Paula	83	41	280	382	23	114	568	230
Santa Barbara	121	75	1,031	991	200	617	2,342	911
Lancaster	153	69	268	122	16	31	344	100
Santa Ana	255	119	1,940	1,743	236	627	2,497	965
Huntington Beach	52	35	177	75	17	46	165	89
Fullerton	98	53	829	603	84	220	1,175	475
Long Beach	93	30	5,627	3,792	470	3,025	12,190	3,162
Pomona	183	58	1,562	1,169	199	482	2,361	546
Ontario	103	36	375	463	45	195	1,023	164
Covina	58	35	235	186	40	88	492	203
San Bernardino	259	108	2,376	2,207	250	706	4,113	1,156
Redlands	297	106	1,134	697	110	186	958	425
Huntington Park	341	84	4,905	3,443	652	1,265	2,707	981
Compton	128	42	2,088	1,970	355	750	1,825	550
Montebello	218	62	2,982	2,652	318	698	2,024	516
Whittier	145	47	1,769	1,245	198	375	1,461	415
Pasadena	519	136	4,252	2,101	364	647	3,486	755
North Hollywood	176	78	1,167	611	124	146	810	256
Alhambra	292	60	1,469	1,153	181	491	1,931	792
Monrovia	79	32	353	258	58	157	987	383
Visalia	236	131	569	292	54	105	645	352
Delano	58	62	128	123	17	16	318	56
Hanford	64	65	522	400	77	98	850	419
Lindsay	104	54	188	148	44	87	299	248
Porterville	187	143	480	345	44	107	765	496
Tulare	150	118	603	481	67	108	850	573
Total	6,756	2,633	48,851	34,082	5,344	13,938	59,027	18,706
Same date last year	6,575	3,002	51,409	34,464	6,742	12,370	61,393	18,925

Sales In the First Two Months Of 1938

SOUTHERN CALIFORNIA EDISON CO., LTD.
SUMMARY OF DEALERS' CONFIDENTIAL REPORTS OF ELECTRICAL
APPLIANCE SALES FROM JAN. 1, 1938, TO FEB. 28, 1938, INCLUSIVE

Sales Area	Ranges	Water Heaters	Refrigerators	Washers	Ironers	Vacuum Cleaners	Radios	Irons
Santa Monica	86	31	271	158	27	108	539	146
Inglewood	74	22	157	269	51	73	258	108
Redondo	19	8	70	107	17	48	272	89
Ventura	11	7	27	59	7	20	156	32
Oxnard	11	7	10	28	4	6	38	17
Santa Paula	2	1	11	22	6	5	87	32
Santa Barbara	11	15	66	99	16	82	257	112
Lancaster	6	1	10	6	1	1	43	10
Santa Ana	29	9	191	301	29	81	743	68
Huntington Beach	3	1	13	10	3	2	18	12
Fullerton	4	1	17	19	2	7	46	16
Long Beach	16	5	419	467	58	455	1,702	319
Pomona	16	5	89	116	8	46	339	36
Ontario	5	1	11	46	2	17	148	24
Covina	8	8	8	25	4	10	64	43
San Bernardino	23	11	140	305	24	94	725	85
Redlands	21	1	47	62	10	50	162	35
Huntington Park	17	9	313	355	55	66	379	83
Compton	9	2	144	188	28	33	264	42
Montebello	14	5	248	309	42	122	308	80
Whittier	10	4	125	129	11	25	159	44
Pasadena	43	5	229	270	55	110	516	87
North Hollywood	12	5	56	53	13	22	108	41
Alhambra	20	4	81	126	22	48	267	96
Monrovia	22	14	24	34	3	22	117	39
Visalia	2	2	6	16	2	5	62	30
Delano	10	6	20	31	7	6	107	62
Hanford	6	2	7	18	2	9	37	24
Lindsay	12	12	11	16	4	6	63	42
Porterville	12	13	7	22	6	1	77	37
Total	522	208	2,940	3,694	524	1,583	8,175	1,891
Same date last year	826	449	3,998	4,818	868	2,276	9,199	2,741

West Coast Blower Maker Expands Facilities

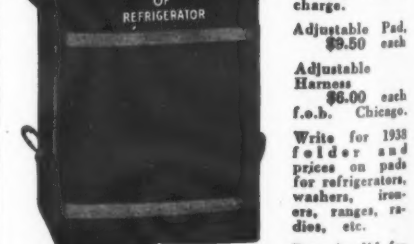
LOS ANGELES—Utility Fan & Mfg. Co., maker of air coolers, air washers, blowers, pumps, and fans, is inaugurating its 1938 spring production program with installation of a 370-ton press for forming sheet metal, a production line, new automatic spot welders, and automatic shears at a total cost of \$50,000.

Ben B. Breslow, president, reports 200 persons employed, an increase of 50% over 1937. Main plant and offices of the company are located at 2528 Santa Fe Ave.

MASTERCRAFT

ADJUSTABLE PAD AND CARRYING HARNESS
The most efficient and economical equipment made for handling refrigerators safely and without scratching or marring. Pad is separate from harness and both adjustable to all styles and sizes of cabinets.

Efficient, sturdy, easily and quickly applied. Name of refrigerator attractively lettered on pad without charge.



Adjustable Pad, \$9.50 each
Adjustable Harness, \$6.00 each
f.o.b. Chicago.

Write for 1938 folder and prices on pads for refrigerators, washers, ironers, ranges, radios, etc.
Pat. Appl'd for
BEARSE MANUFACTURING CO.
3815-3825 Cortland Street, Chicago, Illinois

Anaconda Copper Refrigeration Tubes

CLASSIFIED ADVERTISING

RATES: Fifty words or less in 6-point light-face type only, one insertion, \$2.00, additional words four cents each. Three consecutive insertions \$5.00, additional words ten cents each.

PAYMENT in advance is required for advertising in this column.

REPLIES to advertisements with Box No. should be addressed to Air Conditioning & Refrigeration News, 5229 Cass Ave., Detroit, Mich.

POSITIONS AVAILABLE

UNUSUAL OPPORTUNITY for four district sales managers. If you are experienced and have successful record in selling refrigerator display cases to grocers and markets and want an opportunity to represent a long established manufacturer who is putting out a complete line with exclusive selling features, unmatched in the industry, at thoroughly competitive prices, and a newly developed display line which is being purchased by retailers in every section of the country, we will consider your application for the position of district sales manager in one of the following territories: (1) Upper New York State (2) New York Metropolitan District (3) Northwestern Pennsylvania—Eastern Ohio (4) Eastern Pennsylvania.

Applicants must be able to supervise present dealers and expand present distribution set-up. Positions carry liberal compensation proposition. Address Box 1043, Air Conditioning & Refrigeration News.

SALES ENGINEER calling on jobbers, distributors, and dealers of commercial refrigeration in East and Southeast. Must have thorough knowledge of refrigeration with a past record of honesty, integrity and a business producer. Give full details first letter. BETZ CORPORATION, Betz Building, Hammond, Indiana.

POSITIONS WANTED

AIR CONDITIONING Engineer with 14 years' experience in Chicago and Detroit. Graduate Northwestern University B.Sc. E.E. '23. Now employed as chief air conditioning engineer by large corporation. With same company the past 5 years. Age 38, married. Now located in Detroit but willing to move anywhere. Available May 15. Box 1044, Air Conditioning & Refrigeration News.

FRANCHISES AVAILABLE

DISTRIBUTORS WANTED for newly developed, self-contained Midget display refrigerator. The only case listed for less than \$300.00. All nationally advertised parts including twin-cylinder compressor. Just plug in and use. Well insulated; porcelain exterior and interior; three shelves. Size 40" wide, 44" high, 28" deep. Easy to sell wherever food is purveyed. Good discount to distributors. Write for literature. CONTINENTAL FOOD STORES EQUIPMENT CORP., 2697 Third Ave., Bronx, N. Y.

PAR CONDENSING UNITS
28 MODELS
1-4 TO 20 H. P.
WRITE FOR FREE CATALOG.
MODERN EQUIPMENT CORP.
DEFIANCE, OHIO, U. S. A.

PENN AUTOMATIC CONTROLS AND SWITCHES
Protect the reputation of your product.
Write for Catalog
PENN ELECTRIC SWITCH CO.
GOSHEN, INDIANA

You Can Install
SPORLAN THERMOSTATIC VALVES
EXPANSION
with Confidence!

BUNDY TUBING
Copper-Brazed Steel. Copper Coated Inside and Out. Sizes: 1/8" to 1" O.D.
BUNDY TUBING CO., DETROIT

OIL SEPARATORS
engineered by
G. & S. TOOL & MFG. CO.
8790 Grinnell Detroit, Mich.

ALCO Engineered Refrigerant Controls
—For Highest Evaporator Efficiency
Alco Valve Co. St. Louis, Mo.

COMPLETE LINE of refrigerator display cases, walk-in coolers, and refrigerators for meat markets, grocers, restaurants, etc. Sell with Ehrlich line of compressors, or with any other line of machines. Attractive discounts, also liberal financing arrangements to help sell. 69 years in business. Write for full information and catalog. **EHRLICH REFRIGERATOR MFG. CO., St. Joseph, Mo.**

EQUIPMENT WANTED

INTERESTED in purchasing 500 to 1,000 1/2 and 1/4 H.P. refrigeration motors—new or used repulsion induction or capacitor type. **FEDERAL REFRIGERATOR CORP., 57 East 25th St., New York City.**

WANTED FOR Cash 1,000 GE and Westinghouse defective units. All models. We want to rebuild these so as to have a stock on hand to take care of immediate shipments to our customers. Advise models you have and price. **G. & G. GENUINE MAJESTIC REFRIGERATOR AND RADIO PARTS SERVICE, 5801 Dickens, Chicago.**

EQUIPMENT FOR SALE

COMMERCIAL UNITS all sizes, Frigidaire, Copeland, Kelvinator 1/4 to 1/2 H.P. Special lot model K Frigidaire 1/4 H.P. units not rebuilt—\$12.50, less motor. With slight change this model can be converted to full capacity 1/2 H.P. (Crating additional.) **FEDERAL REFRIGERATOR CORP., 57 East 25th St., New York City.**

FOR SALE: Several hundred brand new Delco motors. Late model capacitor type rubber mounted. Prices: 50 cycles, 110 volts and 220 volts, 1/4 h.p.—\$4.50; 1/2 h.p.—\$5.00; 3/4 h.p.—\$5.50. Also other cycles and volt motors. Order early for best selections. Above motors are subject to prior sale. **INTERSTATE REFRIGERATOR CORP., 96 Fifth Avenue, New York City, GRamercy 7-6731.**

REPAIR SERVICE

MAJESTIC UNIT Replacements—The only original direct factory Majestic replacements. Guaranteed 18 months in writing. All models \$30.00. Immediate delivery from our stock of 2,000 units. Also G. E. and Westinghouse rebuilding guaranteed 18 months from \$30.00 up. Largest rebuilders of Hermetics in the world. **G. & G. GENUINE MAJESTIC REFRIGERATOR AND RADIO PARTS SERVICE, 5801 Dickens, Chicago.**

DOMESTIC CONTROLS repaired. Ranco pencil \$1.75; Ranco box \$2.00; General Electric \$2.00; Cutler-Hammer \$2.00; Bishop Babcock \$2.00; Majestic \$2.00; Tag \$2.00; Penn \$2.00. In business over 20 years. Our name is our guarantee. **UNITED SPEEDOMETER REPAIR CO., INC., 436 West 57th Street, New York City.**

CONTROLS REPAIRED. You profit by our ten years' experience, trained personnel, and precision equipment. Each control accurately calibrated and re-finished. Perfect work, prompt service, reliable guarantee. If it contains a bellows, Hallectric can repair it. Try Warrenol for stuck compressors. Samples available. **HALECTRIC LABORATORY, 1793 Lakeview Road, Cleveland, Ohio.**

MISCELLANEOUS

WANTED: DISTRIBUTORS for the National Market Index of trade-in values. This book contains over 1,200 different models and illustrations, consisting of every nationally known electric refrigerator. Every refrigerator can be easily identified by this book and is a great help to the salesman selling new refrigerators. This book shows definitely the trade-in price of any make refrigerator. Kindly write for all details to **HERMAN HANTOBER at 96 Fifth Avenue, New York City.**

PATENTS

HAVE YOUR patent work done by a specialist. I have had more than 25 years' experience in refrigeration engineering. Prompt searches and reports. Reasonable fees. **H. R. VAN DEVENTER (ASRE), Patent Attorney, 342 Madison Avenue, New York City.**

QUESTIONS

Refrigeration Sales Listed By Cities

No. 3231 (Newspaper, Illinois)—"For some time we have wanted to maintain a regular monthly survey on the number of refrigerators sold in our city and a breakdown on the various makes. This, of course, is rather difficult to get from the local dealers as we would like to have individual breakdowns for the cities of Moline, East Moline, Rock Island, and Davenport, Iowa. If we could not secure it by cities, we would like to have the comparison between Rock Island County in Illinois and Scott County in Iowa."

"We are wondering if you could not get a monthly statement from the various manufacturers or distributors as to their shipments in each community."

"Each year our local refrigeration dealers sponsor a refrigeration week, at which time special inducements are made for people to buy during that particular time. This year we are seeking some new type of promotion and thought that perhaps you may have some information as to various sales events that have been sponsored throughout the country."

Answer: We do not have, and are

quite sure there are not available, any figures on sales of refrigerators by cities or counties.

Engineer's Manual Deals With Industrial Systems

No. 3232 (Medical Association, Washington)—"In order to comply with a request received from Dr. Francisco de P. Miranda, president, National Committee on Alimentation of Mexico, I should like to know whether or not, among the 'Refrigeration Library' publications there are any books on industrial refrigeration and packing plants. In the event there are, will you kindly let me know titles and prices."

Answer: Volume No. 5 of the Refrigeration Library, written by S. L. Potts, is the Refrigeration Engineer's Manual.

This manual is a guide for the licensed operator of industrial refrigeration systems, and would seem to contain the information requested by Dr. Francisco de P. Miranda, president, National Committee on Alimentation, Mexico. We feel reasonably sure the Refrigeration Engineer's Manual will supply your needs.

Specifications Supplement Published March 9

No. 3233 (School, New Jersey)—"I am writing to ask whether an issue of the REFRIGERATION NEWS will be, or has been devoted, this year to a resumé of refrigeration equipment data; also whether that particular issue may be purchased and for how much?"

Answer: We assume that by "resumé" of refrigeration equipment data, you may mean specifications of household electric refrigerators.

Specifications of 1938 models were published in the March 9 issue of AIR CONDITIONING & REFRIGERATION NEWS. Copies of this issue are available at a cost of 20 cents each.

Companies Servicing Hermetic Units

No. 3234 (Dealer, New York)—"We are interested in obtaining the names of companies who repair or preferably buy domestic hermetically sealed refrigerator units."

"We understand that there are concerns who will buy these units whether in running order or not."

"We would appreciate it if you could furnish us with the names of any such firms."

Answer: Following are some firms that make a specialty of repairing household refrigerator units. We are not sure that they make a business of buying old units.

Rex Refrigeration Service, Inc. 2226 S. State St., Chicago, Ill.
G & G Parts Service Co. 5801 Dickens Ave., Chicago, Ill.
Allied Refrigeration Products Co. 1947 Flushing Ave., Brooklyn, N. Y.
American Refrigerating Engineer, Inc. 2257 Silverton Ave., Chicago, Ill.

Modern Kitchen Bureau Publishes Kitchen Book

No. 3235 (Dealer, Illinois)—"I read in your REFRIGERATION NEWS issue of March 3 about a Modern Kitchen Bureau book."

"Will you please tell me where I can obtain this book, or what I must do to get it."

Answer: Address the Modern Kitchen Bureau at 420 Lexington Ave., New York, N. Y.

Ice Cream Cabinet Manufacturers Listed

No. 3236 (Distributor, New Jersey)—"Please advise us of two or three manufacturers of commercial four and six-hole ice cream cabinets, dispensing, hardening, and storage."

"We would prefer having you refer us to manufacturers in this vicinity."

Answer: Following are some of the firms in your vicinity which manufacture such equipment:

Dickerson Co. 148 Dickerson St., Newark, N. J.
Savage Arms Corp., Utica, N. Y.
Standard Body Corp. 430 E. 104th St., New York, N. Y.

For a complete list of the manufacturers of such equipment, please refer to the 1938 Refrigeration & Air Conditioning Directory. This is a 252-page book which sells for \$1.00 per copy. The book is an entirely new compilation from start to finish. The products are classified under natural groupings, and there is a complete index of all classified products in the back of the book.

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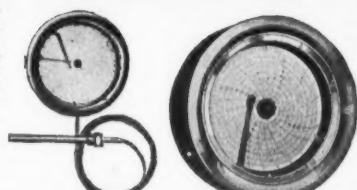


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Los Angeles 122 Mariposa St.
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